UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/CN.17/1997/2/Add.3
22 January 1997

ORIGINAL: ENGLISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fifth session
7-25 April 1997

Overall progress achieved since the United Nations Conference on Environment and Development

Report of the Secretary-General

Addendum

Changing consumption patterns*

(Chapter 4 of Agenda 21)

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* The report was prepared by the United Nations Department for Policy Coordination and Sustainable Development (DPCSD) as task manager for chapter 4 of Agenda 21, in accordance with arrangements agreed to by the Inter-Agency Committee on Sustainable Development (IACSD). It is the result of consultation and information exchange between United Nations agencies, international and national organizations, interested government agencies and a range of other institutions and individuals.

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INTRODUCTION

1. This report reviews progress made in the implementation of the objectives set out in chapter 4 of Agenda 21 (Changing consumption and production patterns),[1] taking into account the decisions taken by the Commission on Sustainable Development on this subject at its second, third and fourth sessions. The issue of consumption and production patterns in the context of sustainable development first received full recognition at the United Nations Conference on Environment and Development in 1992. Chapter 4 of Agenda 21 addresses many issues at the heart of environment and development policy-making. They include product policy, new concepts of economic growth and prosperity, efficient use of natural resources, reducing emissions and waste, environmentally sound pricing, and technology.

Box 1. Changing consumption and production patterns, since the United Nations Conference on Environment and Development, as seen at other United Nations conferences

Population and Development (Cairo, 1994). Development strategies must realistically reflect the short-, medium-, and long-term implications of, and consequences for, population dynamics and patterns of production and consumption. To achieve sustainable development and a higher quality of life for all people, Governments should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Fourth World Conference on Women (Beijing, 1995). Poverty and environmental degradation are closely related. While poverty results in certain kinds of environmental stress, the major cause of the continued deterioration in the global environment is unsustainable patterns of consumption and production, particularly in industrialized countries.

Habitat II (Istanbul, June 1996). Consumption patterns in human settlements should be adjusted to the needs of resource protection, with more attention given to strategies for a life-cycle economy. The internal structures of cities should be corrected. Industrialized countries have to recognize that their urban lifestyles, patterns of production and consumption are a major part of the global environmental problem.

World Food Summit (Rome, 1996). Individuals and households have a key role in decisions and actions affecting their food security. They must be enabled and encouraged to participate actively, both individually and collectively, through producers, consumers, and other organizations of civil society.

I. KEY OBJECTIVES

2. Of the five objectives identified in chapter 4, two are directed towards the international community and three are directed towards the development of national policies and strategies to encourage changes in consumption and production patterns.

3. Objectives directed towards the international community are:

(a) To promote patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity;

(b) To develop a better understanding of the role of consumption and how to bring about more sustainable consumption patterns.

Objectives directed more towards the national level are:

(a) To promote efficiency in production processes and reduce wasteful consumption in the process of economic growth, taking into account the development needs of developing countries;

(b) To develop a domestic policy framework that will encourage a shift to more sustainable patterns of production and consumption;

(c) To reinforce both values that encourage sustainable consumption and production patterns and policies that encourage the transfer of environmentally sound technologies to developing countries.

Box 2. The unsustainable pattern of consumption and production, particularly in industrialized countries: some trends

Over the past 45 years the global economy has nearly quintupled. Consumption of grain, beef and water has tripled, while paper use has risen six times. The use of fossil fuels has grown fourfold, as have CO_2 emissions.

Since 1950, and reflecting differences in per capita incomes, the richest fifth has doubled its per capita consumption of energy, meat, timber, steel and copper, and quadrupled its car ownership. The per capita consumption of the poorest fifth has hardly increased.

The OECD countries account for 44.7 per cent of global total CO_2 emissions. The emissions continue to increase and reflect the growth in industrialized societies. Increasing numbers of people in developing countries, in particular in several major developing economies, are beginning to approximate consumption patterns similar to the middle-income classes in developed countries. Those consumers roughly total 750 million, almost as many as the 850 million consumers in the industrialized countries.

Sources: Brown, L. R. and others (1996). State of the World 1996 (New York: Norton); Durning, A. T. (1996). This Place on Earth: Home and the Practice of Permane (Seattle: Sasqautch Books); Myers, N. (1997). Consumption in relation to population, environment and development. The Environmentalist (In press); United Nations (1996). The World Population Prospects: the 1996 Revision. Annex I: Demographic indicators (to be issued); World Resources Institute, World Resources 1996-97 (New York: Oxford University Press).

II. PROGRESS ACHIEVED

A. International efforts to promote patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity

4. Several international agreements which have been reached or in the context of which further progress has been made since the Conference and which entail changing consumption and production patterns now cover such issues as phasing out ozone-depleting substances, stabilizing and eventually reducing greenhouse-gas emissions, prohibiting the exportation of hazardous waste, reducing emissions of land-based sources of marine pollution, phasing out lead in gasoline, and managing international fisheries. Progress has also been made in advancing discussions on sustainable forest management. Each of these areas is extensively discussed in reports on other chapters of Agenda 21.

Box 3. The international work programme on changing production and consumption patterns

At its session in 1995, the Commission on Sustainable Development agreed on an international work programme on the issue of changing production and consumption patterns. The work programme builds on the elements of the Action Programme adopted at the Oslo Ministerial Roundtable Conference on Sustainable Production and Consumption (6-10 February, Oslo). It has five main elements and is in its first year of implementation. The elements are:

(a) Identifying the policy implications of projected trends in consumption and production patterns;

(b) Assessing the impact on developing countries, especially the least developed countries and small island developing States, of changes in consumption and production in developed countries;

(c) Evaluating the effectiveness of policy measures intended to change consumption and production patterns, such as command-and-control, economic and social instruments, governmental procurement policies and guidelines;

(d) Eliciting time-bound voluntary commitments from countries to make measurable progress on those sustainable development goals that have an especially high priority at the national level;

(e) Revising the guidelines for consumer protection.

B. Developing a better understanding of the role of consumption and how to bring about more sustainable consumption patterns

5. The issue of changing consumption and production patterns has figured prominently on the international policy-making agenda. Some countries, such as Australia, Brazil, the Netherlands, Norway and the Republic of Korea have fulfilled a leadership role in facilitating and developing the international debate on the issue. International organizations (e.g., the Organisation for Economic Cooperation and Development (OECD), the United Nations Environment Programme (UNEP)), business and industry groups (e.g., World Business Council for Sustainable Development (WBCSD)), the academic community and many non-governmental organizations have been active in taking up specific tasks and responsibilities and have been instrumental for the progress achieved.

6. Several United Nations agencies and other international organizations, Governments, non-governmental organizations and academics have initiated activities on the identification of indicators for sustainability, the "greening" of current gross domestic product (GDP) as a measure of progress, genuine savings indicators, measures of environmental debt, and the further operationalization of concepts such as eco-space, ecological footprints, and ecological rucksacks. Many of these approaches and tools have contributed to policy-making over the past five years, in particular with regard to the integration of environment and development in socio-economic policy (chapter 8 of Agenda 21) and as improved information in decision-making processes (chapter 40 of Agenda 21). The work on changing consumption and production patterns over the past five years has resulted in a consensus that the most promising and cost-effective policy strategies are those that aim at cost internalization and improved efficiency in resource and energy use.

7. Significant progress has also been achieved in increasing an understanding of the nature of environmental problems and the interlinkages between economic and environmental policy-making, at the sectoral level, inter alia. Good examples are the studies on the transport and energy sectors, in the context of the Framework Convention on Climate Change, by OECD and the International Atomic Energy Agency (IAEA), the recent study on the sustainable paper cycle,[2] the first comprehensive life-cycle analysis of a large industrial sector, by the International Institute for Environment and Development (IIED), and the report on comprehensive assessment of freshwater resources,[3] prepared for the Commission at its fifth session.

8. A focus on changing consumption and production patterns is especially useful for integrating environmental and economic factors, for focusing on the demand side as well as the supply side of the economy, and for highlighting the need for policy measures that affect the behaviour of a large number of producers and consumers. It is recognized that measures which internalize environmental costs are important for changing behaviour. But those measures need to be accompanied by others that facilitate or magnify the responses. Thus, a list of policy options would include regulatory instruments, economic incentives and disincentives, social incentives and disincentives, facilities and infrastructure, information and education, and technology development and diffusion.

Box 4. Cost internalization in the production of Malaysian palm oil

Organic wastes from the mills of the crude palm oil industry used to be the worst source of water pollution in Malaysia. Since 1977 effluent control in the industry has been carried out through a licensing system stipulating effluent discharge standards for each licence holder. Standards have been made stricter over time. Licence fees for high-effluent discharge plants, emitting above standard, were more costly than the flat-rate fees for plants emitting below standard - e.g., for biochemical oxygen demand (bod) loads. Both the Government and industry developed pollution-abatement technologies and stimulated their dissemination. The Palm Oil Research Institute of Malaysia was established. This mix of regulatory, economic and social instruments resulted in a decrease in pollution of 99 per cent (bod loads) over a period of seven years.

Source: Khalid, A. R. (1995). "Internalisation of environmental externalities: the Malaysian experience", paper presented at the UNCTAD Expert Group Meeting on Internalization of Environmental Externalities, Geneva, 13-14 February 1995.

9. Methods to achieve greater resource and energy efficiency in production processes have been further developed by business and industry. Eco-efficiency and the related concept of industrial ecology, which aims to close the production cycle for polluting substances by using them as inputs in other industries, have become common in discussions on sound environmental management. Research by the academic community and non-governmental organizations has demonstrated that increases in efficiency by a factor of 4 can be achieved with currently available technology and knowledge. Efficiency improvements by a factor of 10 by the year 2025 might be necessary in order to achieve a minimally satisfactory degree of environmental sustainability.

10. It has also been recognized and emphasized over the years that cost internalization and eco-efficiency approaches are most effectively and efficiently implemented in combination with specific time-bound targets and objectives.

Box 5. Practising eco-efficiency

Xerox has adopted a new system of product stewardship. Copy cartridges that were disposable when first introduced are now being replaced by cartridges that are taken apart and have their components recycled. This form of product stewardship introduces "life cycle" concepts and makes manufacturers, along with suppliers and consumers, responsible participants in the cradle-to-grave cycle of products.

In 1995 Sony introduced "Green TVs" which contain recyclable materials, disassembly characteristics, plastics that are reduced in both type and variety, and halogen-free flame retardant materials. As a result the weight and cost of the television sets have been significantly reduced, while use of hazardous substances during production has been eliminated.

Dow Chemicals implemented energy savings and waste-reduction measures which yielded a rate of return, on a relatively small investment, averaging over 200 per cent per year.

Sources: Fussler, C. (1996). Driving Eco-Innovation: A Breakthrough Discipline for Innovation and Sustainability (London, Pitman); Lovins, A. B. (1996). Megawatts: twelve transitions, eight improvements and one distraction. Energy Policy, vol. 24, No. 4.

11. It is now also recognized that differences in levels of per capita resource use among and within countries primarily reflect disparities in per capita incomes and are thus linked to national policies and international cooperation intended to accelerate economic growth and combat poverty, especially in developing countries, underlining the importance of developed countries fulfilling their commitments to official development assistance (ODA). To the extent that such policies succeed in causing per capita incomes gradually to converge over time, per capita resource use would tend to increase at both the country and world levels and associated environmental problems, to worsen. Achieving or maintaining environmental sustainability will thus require all countries in line with their own national priorities progressively to adopt more sustainable consumption and production patterns.

12. A reorientation of governmental policy-making and the fact that environment and development policy-making on changing consumption patterns is gradually shifting to implementation and a more action-oriented approach have directly resulted in the recognition of the need for a stronger role for actors such as business and industry, trade unions, international organizations and non-governmental organizations. Increasingly, responsibilities have been defined for the major actors, such as local authorities, business, trade unions and national Governments.

C. Promoting efficiency in production processes and reducing wasteful consumption in the process of economic growth, taking into account the development needs of developing countries

13. The combination of consumer and technology-driven changes in economic structures, the effects of national environmental policies, and the spreading of environmental awareness have resulted in measurable - although inadequate - progress in the achievement of this objective. In most developed countries and for this grouping as a whole, material and energy intensity of production and the carbon intensity of energy have continued to decline. As a result, the rate of growth of emissions of CO_2 has slowed, although absolute amounts continue to increase. Emissions of ozone-depleting substances, and releases of lead are falling; emissions of SO_2 and the release of hazardous wastes to environmental media and of pollutants to freshwater are also falling, although they are still considered far too high. The volume of municipal wastes discharged to landfills continues to increase, although its rate of growth has been dramatically reduced. The growth rates of certain emissions associated primarily with the transport sector, such as NOx, and VOC have also slowed greatly, and the absolute volumes appear to have nearly stabilized. They are still, however, far too high compared to their environmental and health costs. An increasing number of developing countries and economies in transition have made progress in respect of this objective. Indeed, in some of them, because of technological leap-frogging, annual pollution levels and resource intensity in some sectors are lower than they were in industrial countries at a similar level of development. (More extensive appraisals on all of these issues are to be found in concise reports on other chapters of Agenda 21).

14. Increased efficiency in production has been achieved through various policy tools and measures. Much policy-making has focused on products. There have been two important aspects in product policy: first, the further shift towards demand management strategies by Governments, accompanied by the enhanced power of the consumer to support or avoid products on environmental grounds, taking into account their production and process methods; and secondly, the growth in interest for new and innovative instruments related to producer responsibility. Among other things, these approaches require producers to supply adequate information in response to consumer demands and to make provision for the maintenance and/or final disposal of the product. In this regard the ISO 14000 series and the Eco-management and Audit System (EMAS) certification processes for environmental management systems are stimulating more sustainable production processes.

15. Policy development is increasingly benefiting from life-cycle analysis. The integrated life-cycle analysis approach emphasizes that resource production and consumption is a multistage process, with each stage associated with certain types of environmental degradation. Each stage should be regarded as an integral part of a whole interrelated process, with changes at one stage yielding effects at other stages. For instance, establishing manufacturers' responsibility for some aspects of disposal at the end of product life-cycles may influence design of the product and packaging material, thus integrating waste avoidance into the production process. Examples of such policies in European countries include the packaging legislation pioneered in Germany,

take-back requirements, and deposit/refund schemes, such as the deposit to be paid when buying a new car (implemented in the Netherlands) and refunded once the car is at the end of its life-span.

D. Developing a domestic policy framework that will encourage a shift to more sustainable patterns of production and consumption

16. Since the Conference, the policy framework has been further developed both in terms of content and process. Studies and workshops have been undertaken by several countries interested in defining and scoping the debate on consumption and production patterns. Among the most instrumental in making progress with regard to the development of a policy framework were the two Oslo Ministerial Roundtables on sustainable production and consumption. In addition, OECD, for example, initiated a discussion on the available and most relevant concepts and strategies for policy development.

17. Also since the Conference, most countries have set up national commissions on sustainable development or national round tables to discuss national policies intended to achieve more sustainable development. These commissions often function as a platform, involving major stakeholders in society, providing input in national decision-making processes on environment and development policy-making. The commissions often report on progress to their Governments, the Commission or the Earth Council.[4]

E. Reinforcing both values that encourage sustainable consumption and production patterns and policies that encourage the transfer of environmentally sound technologies to developing countries

18. Shifts in the values on which consumers and producers base decisions can be widely observed. The continuing rise in the application of eco-labels illustrates a growing demand for products that are environmentally sound and safe for human health and safety. Consumers, especially in the developed countries, are demanding more environmentally friendly and "fairly" produced products from developing countries.

19. Initiatives from many environmental non-governmental organizations are targeted at influencing the behaviour of consumers in their daily lives. The Sustainable Europe campaign, through a continuing process of preparing reports on sustainability for the European countries, is informing consumers and producers about the impacts of their lifestyles and about the changes that are needed in order to make consumption patterns more sustainable.

20. Citizen participation programmes such as the eco-team programme of the non-governmental organization Global Action Plan (GAP) are increasingly being adopted at the community level and have a significant impact on changing individuals' lifestyles towards more sustainable patterns.

21. The Commission on Sustainable Development recognized at its session in 1996 that the role of the media and advertising may have a significant impact on the values of citizens. Additional work needs to be done, however, on how the media and advertising industry can help support changes in current patterns of consumption and make them more sustainable.

22. The Brazil/Norway Workshop on Consumption and Production Patterns (Brasilia, November 1996) concluded, among other things, that the role of advertising and the media is critical; that the international community should apply the resources of the media to induce behavioural changes to avoid waste, inefficient resource use and conspicuous consumption; and that positive messages of how individuals can live in a sustainable manner were required, instead of encouraging ever-rising material consumption or exaggerating the likelihood of environmental disaster.

23. Issues related to the transfer of environmentally sound technologies are discussed in the concise report on chapter 34 of Agenda 21 (E/CN.17/1997/2/Add.24).

III. PROMISING CHANGES

24. The most promising changes and developments can be observed in the increased participation of non-governmental organizations, business, trade unions, local authorities and the academic community in the implementation of Agenda 21 - in particular, the ongoing efforts of the non-governmental organization and academic communities to promote sustainable lifestyles, the business initiatives furthering the development and implementation of eco-efficiency, the pro-active role that local authorities and trade unions play in mobilizing public and stakeholder participation, and the responsibilities taken up by international organizations to facilitate North/South, East/West cooperation and further to promote cleaner production and sustainable consumption patterns.

Box 6. Eco-taxes in Europe

According to a recent report of the European Environment Agency, the continuing use of environmental taxes over the past decade, has accelerated in the past 5-6 years. The report finds that the taxes have been environmentally effective, and seem to have achieved their environmental objectives at reasonable cost. Examples of successful taxes are tax differentials on leaded fuel (e.g., Sweden), taxes on toxic waste (e.g., Germany), and water pollution charges (e.g., Netherlands).

Source: European Environment Agency (1996). Environmental Taxes: Implementation and Environmental Effectiveness. Environmental Issues Series No. 1. Copenhagen.

25. Participants in the GAP eco-team programme, for example, have reduced usage of water, on average, by 25 per cent, fuel use for transport by 16 per cent (with related reductions in CO_2 emissions), and produced 42 per cent less household waste.

26. Governments are increasingly adding demand-side management to policy-making in order to influence actors on the supply side, the producers. In addition, there is an increasing use of mixes of regulatory, economic and social instruments to achieve certain policy objectives.

27. One of the most promising approaches is the use of emission-trading schemes in several countries. Active consideration is now being given to how an international scheme for emission-trading for CO_2 and SO_2 might be implemented.

28. Some key transnational corporations and WBCSD, among others, have made considerable progress in making eco-efficiency operational, reducing the material and energy intensity per unit produced and improving profitability. UNEP, in cooperation with Governments and the business community, has played an important role in exploring viable business strategies for cleaner production and eco-efficiency in developed and developing countries.

29. In the area of enhancing the environmental performance of Governments, international organizations and certain countries have undertaken promising initiatives over the past several years, e.g., the OECD Council recommendation on improving the environmental performance of government. In many countries, greater priority is being given to governmental purchasing as a component of environmental policy-making.

30. Promising changes can be observed in the environmental programmes developed and implemented by local authorities. Innovative ideas about public participation, community development and making operational local Agenda 21s are being piloted and demonstrated. The International Council for Local Environmental Initiatives (ICLEI) has played a significant role in facilitating these activities at the local level.[5]

31. Product-oriented policies have matured over the past five years, and promising results include consumer information (including eco-labels) on environmentally preferable and "fair trade" products, extended producer responsibility, take-back requirements, the involvement of the retail sector, and continued efforts in the areas of life-cycle management, eco-design, materials substitutions, and enhanced durability. For example, Swedish consumers buy up half of the European Union's imported pesticide-free bananas; Germany's baby food products will soon have entirely organic sources; some 4,000 Mexican farmers are producing organically grown coffee; and some major companies, such as Patagonia, are turning towards organically grown cotton and recycled materials in the production of their clothing. Electric cars (EV1 Saturn (United States) and Tulip-project Citroen (France)) are on the market, waste-streams are being turned into input resources, life-cycle studies are being conducted for specific industries (paper, IIED/WBCSD), and business is increasingly becoming aware of the fact that an environmentally sound image is an essential aspect of solid company practice and a quality check for the products produced.

Box 7. Eco-labelling

At the United Nations Conference on Environment and Development, eco-labelling was considered primarily in the context of changing consumption patterns. In the period since the Conference, eco-labelling criteria have been of particular interest because of their trade implications. Although eco-labels can improve the quality and transparency of environmental information about some products, they may also serve as disguised protectionist behaviour. The work under way in the International Organisation for Standardization and the World Trade Organization (WTO) may help to minimize such concerns.

Eco-labels are increasingly being used on national and regional levels. The Nordic countries, for example, have had an eco-label, the "Nordic Swan", since 1989. The vast majority of the labels are in different categories of paper products, sometimes enjoying market shares of up to 30 per cent. It was found that over a five-year period of implementation, the labels significantly influenced consumers' purchasing patterns and the production methods of producers participating in the scheme.

Source: Nordic Council of Ministers (1996). The Use of Economic Instruments in Nordic Environmental Policy (Copenhagen: Nordic Publishing House).

32. More attention is being given to environmental considerations in the design of a wide variety of goods, services and infrastructure. Increasingly designers incorporate aspects such as future disposal and recycling into the design of products. Physical planners and architects have shown great innovation in the design of cities, infrastructure, buildings and houses, taking into consideration elements such as quality of life, resource efficiency, accessibility, durability and living environment.

33. Another promising change is the increasing role of the service industry in general. In industrialized countries there is a trend emerging in the substitution of goods for services that are more environmentally friendly. Business and industry are increasingly stressing the service offered with the purchase of a product (see also box 5). The ongoing developments in the area of telecommunications can play an important role in intensifying this trend.

IV. UNFULFILLED EXPECTATIONS

34. The positive developments mentioned in sections II and III have been largely offset by larger volumes of production. Consequently, many natural resource and pollution problems persist or continue to worsen. The car industry has, for example, produced cleaner and more efficient cars; however, the growth in the number of vehicles has offset the positive environmental effects of that development. Similarly, significant results have been achieved in waste reduction, through, in particular, waste prevention programmes, but total volumes of waste produced have been growing in many countries of OECD.

35. A cause for grave concern is rising CO_2 emissions. Governments in industrialized countries have not been able to achieve previous commitments and identified targets. Further, changing relevant consumption and production patterns will need additional efforts and activities in policy-making.

36. In spite of the fact that important results have been achieved in the area of policy integration, many governmental policies in sectors such as agriculture, economics, finance, trade, communications, tourism, energy and transport do not adequately reflect an appreciation of how they shape consumption and production patterns. Evaluation of policies in terms of effectiveness, efficiency, and equity in these sectors in respect of the objective of sustainable development needs to be strengthened.

37. The call for environmentally sound pricing - efficient cost internalization - was renewed at the Conference, but little progress has been made. Governments shy away from additional eco-taxes and environmental regulations that intend to incorporate the cost of environmental protection into products and services offered in the marketplace. Examples of such policies include carbon taxes, environmental tax reform and subsidy removal, international eco-labelling schemes, standards for products, management, and performance (e.g., ISO, EMAS), and extended producer responsibility and packaging requirements.

38. Developed countries have also failed to provide sufficient finance and technological and other forms of support to enable developing countries to accelerate their own transition towards more sustainable consumption and production patterns.[6]

V. EMERGING PRIORITIES

39. An ongoing priority is the further implementation of the Commission's international work programme on changing consumption and production patterns. The work programme, agreed by the Commission at its third session, is in its first year of implementation. Some of the activities initiated include the identification of a "core-set" of indicators to measure changes in consumption and production patterns, a case study on trade opportunities for developing countries due to changes in consumption and production patterns in industrialized countries, and the development of a database on new and innovative instruments intended to make consumption patterns more sustainable. In addition, the revision of the guidelines for consumer protection is under way, and the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat, in close cooperation with international organizations, non-governmental organizations (in particular, Consumers International), and other major groups, has embarked on the task of preparing additional draft guidelines addressing sustainable consumption.

40. Changing consumption and production patterns is increasingly recognized in the international policy-making arena as an important issue. Since the Conference, the emphasis of international and national efforts has been on increasing understanding and policy development. An emerging priority, also reflected in a Commission decision taken in 1996, is the need for a more action-

oriented approach, focused on the implementation of policies. This implies a continued and strengthened cooperation between actors, in developed and developing countries, in particular those with responsibilities for implementation.

41. Some key challenges that can be highlighted for Governments and business and industry are:

(a) To adopt more widely eco-efficiency strategies in developed and developing countries and countries with economies in transition;

(b) To enhance self-regulation, managing the responsibilities and privileges of some of the key actors in the process of sustainability, such as business and industry and regional and local authorities.

42. For Governments, international organizations and non-governmental organizations, it is important:

(a) To assess the most efficient and effective policy instruments and mixes of instruments in order to achieve a higher degree of cost internalization and eco-efficiency;

(b) To increase understanding of the key determining factors in the behaviour of consumers, in particular in the areas of transport and energy;

(c) To further stimulate social and technological innovation;

(d) To pursue the integration of sustainable development in the heart of governmental decision-making;

(e) To assess the scope for environmental tax reform and subsidy removal, in order to remove distorted prices, stimulate development, encourage employment and reduce pollution and resource use;

(f) As consumers themselves, to help shape markets through better understanding of their use of goods and services and incorporating environmental criteria into procurement policies.

43. For business, in cooperation with Governments and non-governmental organizations, it is important:

(a) To find new ways of satisfying consumer requirements at the lowest environmental cost, in particular the further substitution of goods for services;

(b) To put cleaner production and eco-efficiency into operation. Where possible, these strategies should be applied in combination with time-bound targets and objectives.

44. For non-governmental organizations, in cooperation with Governments and business, the goal should be:

(a) To foster North/South and East/West dialogue and international networks on changing consumption and production patterns;

(b) To develop and propose concrete action at all levels of policy-making;

(c) To continue to strengthen education and training on sustainable "consumption values" and lifestyles;

(d) To educate and assist citizens to participate in decision-making on policies intended to change consumption and production patterns.

45. The upcoming period will provide important lessons learned from the implementation of policies. The exchange of examples of best practice should provide a further stimulus for governmental action.

46. The deep-seated nature of many of the issues requires new forms of international cooperation between and among Governments, international organizations and actors in civil society on questions such as resource-pricing, technology, trade, environmental regulation and management systems. The results of the recent bilateral initiative of Norway and Brazil illustrate that there is a commonality of interests between developed and developing countries on many issues related to changing consumption and production patterns.

47. Future discussions in the Commission may be most fruitful in a framework in which approaches to changing policy on consumption and production patterns can be explored within such major economic sectors as energy, transport, forestry, tourism, and agriculture. Such a framework would facilitate the increasing focus on implementation and the need for a more action-oriented approach.

48. Changing consumption and production patterns does not imply a decline in living standards or quality of life. It calls for a reorientation - not merely consuming less, but consuming differently. Following the industrial revolution and the telecommunications revolutions, the third wave of progress in world society will be marked by sustainable consumption patterns that ensure prosperity, improve the quality of life, and provide equitable access to education, health and safety, and a high-quality environment.

Notes

[1] Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] Towards a Sustainable Paper Cycle (London: International Institute for Environment and Development, 1996).

[3] E/CN.17/1997/2/Add.17.

[4] See also E/CN.17/1997/2/Add.7.

[5] See also E/CN.17/1997/2/Add.22 and 26.

[6] See E/CN.17/1997/2/Add.1, 23 and 24.

UNITED NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/CN.17/1997/2/Add.4
24 January 1997

ORIGINAL: ENGLISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fifth session
7-25 April 1997

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Addendum

Demographic dynamics and sustainability*

(Chapter 5 of Agenda 21)

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* The report was prepared by the United Nations Population Fund (UNFPA) as task manager for chapter 5 of Agenda 21, in accordance with arrangements agreed to by the Inter-agency Committee on Sustainable Development (IACSD). It is the result of consultations and information exchange between United Nations agencies, international and national organizations, interested government agencies and non-governmental organizations.

97-02045 (E) 130297

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INTRODUCTION

1. This report reviews progress made in the implementation of the objectives set out in chapter 5 of Agenda 21 (Demographic dynamics and sustainability),[1] taking into account the decisions taken by the Commission on Sustainable Development on this subject at its third and fourth sessions. As Task Manager for chapter 5 of Agenda 21 (Demographic dynamics and sustainability), the United Nations Population Fund (UNFPA) prepared reports for the Commission on Sustainable Development at its third and fourth sessions on progress being made in the implementation of the aims set out in the chapter. Among other things, the reports described some salient features of the global and regional demographic landscape and noted the increase in general awareness of the vital links between population and the environment. The reports focused on actions taken by Governments in support of population and sustainable development policies and programmes and activities of non-governmental organizations and the United Nations system as follow-up to chapter 5 of Agenda 21 and chapter 3 of the Programme of Action of the International Conference on Population and Development (Interrelationships between population, sustained economic growth and sustainable development).[2]

I. OBJECTIVES

2. In chapter 5 of Agenda 21, the programme areas reflect three key objectives:

(a) Developing and disseminating knowledge concerning the links between demographic trends and factors and sustainable development;

(b) Formulating integrated national policies for environment and development, taking into account demographic trends and factors;

(c) Implementing integrated environment and development programmes at the local level, taking into account demographic trends and factors.

II. DEMOGRAPHIC BACKGROUND

3. The latest United Nations projections of world population[3] into the early decades of the twenty-first century show a marked slowing of population growth, as compared with similar projections for the same time periods made in the year of the United Nations Conference on Environment and Development (table 1). The world population is now projected to become 6.1 billion in 2000 and grow to 7.7 billion in 2020, figures that are, respectively, 137 million and 378 million lower than had been projected in 1992. Of particular significance is the projected slowing of the rate at which the population is expected to grow, a pattern that is found in all regions of the world. The figures of the 1996 Revision are lower than those projected in 1992, owing to an assumed faster decline of fertility rates in a number of developing countries, notably in South-central Asia and sub-Saharan Africa. Fertility is now estimated to have significantly declined in Bangladesh, Côte d'Ivoire, India, Kenya, Myanmar,

Pakistan, the Syrian Arab Republic and Turkey. Another factor in the reduction of the expected growth rate in the less developed regions is the higher mortality in countries affected by wars (Burundi, Iraq, Liberia, Rwanda) or by the spread of AIDS. In terms of the sustainability of the world's environmental resource base, however, the annual increase in absolute numbers is very important. For instance, in spite of clear signs that the fertility transition has started in sub-Saharan Africa, current levels of fertility in most countries of the region remain high and in 17 countries are equal to or exceed six births per woman, showing little or no sign of decrease. Hence, since the annual increments to the population of the developing world will continue to be significant (77 million per annum between now and the year 2020), the environmental implications remain far-reaching for many low-income countries, particularly those in South Asia and sub-Saharan Africa, where land degradation and deforestation are most severe.

Table 1. Projected population and annual growth rates for regions of the world,* 2000, 2010 and 2020

Region	Population (thousands)			Annual growth (percentage)	
	2000	2010	2020	2000-2010	2010-2020
	1992 Revision				
Africa	856 154	1 116 253	1 421 053	2.7	2.4
Asia	3 691 578	4 213 571	4 688 641	1.3	1.1
Europe	523 749	536 253	541 798	0.2	0.1
Latin America	522 962	600 380	670 721	1.4	1.1
North America	305 881	330 298	351 812	0.8	0.6
Oceania	30 967	35 366	39 501	1.3	1.1
World	6 228 254	7 149 506	8 049 940	1.4	1.2
	1996 Revision				
Africa	819 910	1 051 896	1 316 839	2.5	2.2
Asia	3 688 535	4 160 878	4 590 782	1.2	1.0
Europe	729 328	722 255	709 371	-0.1	-0.2
Latin America	514 688	589 301	658 496	1.4	1.1
North America	308 636	332 035	357 765	0.7	0.7
Oceania	30 253	34 411	38 671	1.3	1.2
World	6 091 351	6 890 775	7 671 924	1.2	1.1

Source: For 1992, World Population Prospects: The 1992 Revision (United Nations publication, Sales No. E.93.XIII.7); for 1996, United Nations, World Population Prospects: The 1996 Revision (United Nations publication, to be issued).

* The regional totals in the 1992 Revision do not add up to the world total. This is because the world total includes the former USSR, which is not shown separately here. For the 1996 Revision the population of the former USSR is included partly in Asia and partly in Europe.

4. Urbanization has become a dominant trend in the growth and distribution of the population. In 1950, only 29 per cent of the world population lived in urban areas. In 1994, the proportion was estimated to be 45 per cent. This urban population is growing three times faster than its rural counterpart. By 2005, half of the world population are expected to be urban dwellers. The development and environmental implications are profound, as urban authorities strive to meet infrastructure and basic services, such as housing, energy, water, sewage disposal, transportation and general utilities.

5. The impact of urbanization is most marked in the largest cities. Of the 15 largest urban agglomerations in 1950, 4 were in developing countries (Shanghai, Buenos Aires, Calcutta and Beijing). In 1994, 11 of the 15 were located in developing countries that are already facing severe problems related to urban degradation, industrial pollution, waste generation and general congestion. These cities include São Paulo, Mexico City, Beijing, Calcutta, Jakarta and Rio de Janeiro. By 2015, 13 of the 15 will be in developing countries: 10 in Asia, 2 in Latin America and 1 in Africa. Only two of the largest cities (Tokyo and New York) will be located in developed countries.

6. Despite the increasing difficulties in improving or even maintaining living conditions in the biggest cities, migration movements continue. Both internal migration and international migration are driven by population growth and by inequities within and between countries. The combination of poverty, rapid population growth and environmental damage is a powerful destabilizing factor driving urban growth. This is most marked in parts of Africa but can also be seen in South Asia and some Latin American countries. Thus, continuing high levels of in-migration, particularly in areas with high population densities, contribute to and intensify urban environmental stress.

7. According to the Programme of Action of the International Conference on Population and Development (Cairo, 1994),[2] action or inaction by the world community will determine how many people will inhabit the earth and share its finite resources in the decades ahead. To achieve early population stabilization, the Conference recommendations must be implemented immediately.

8. The Programme of Action is based on the premise that sustainable development can only be achieved by broadening the options and choices available to individual women and men. In particular, chapter 4, Gender equality, equity and empowerment of women, states that the emancipation and empowerment of women is both an important end in itself and an indispensable condition for sustainable development. Unless gender inequality and inequity are reduced, all other goals of the Conference are likely to go unfulfilled. Moreover, the Programme of Action is committed to improving the quality of life by focusing on three interdependent goals: reductions in infant, child and maternal mortality; expanded access to education, particularly for women and girls; and universal access to primary health care, including reproductive health and family planning services.

9. The success of future local and global environmental actions will be closely linked to the degree of success in implementing the Programme of Action. It is important to recognize that the Conference built on the consensus adopted at the United Nations Conference on Environment and Development and the World

Conference on Human Rights (Vienna, 1993) and anticipated many of the themes dealt with at the World Summit for Social Development (Copenhagen, 1995), the Fourth World Conference on Women (Beijing, 1995), the United Nations Conference on Human Settlements (Habitat II) (Istanbul, 1996) and the World Food Summit (Rome, 1996).

III. PROGRESS ACHIEVED

10. Although the linkages between population and the environment had been recognized prior to the United Nations Conference on Environment and Development (Rio de Janeiro, 1992), the Conference has itself led to a sharper focus on the issues and a set of recommendations for dealing with them. National and global concern about the interactions between population, resources and environment has grown considerably. Moreover, the International Conference on Population and Development referred to and reinforced the concerns in chapter 5 of Agenda 21 by noting the complex interrelationships between population, sustained economic growth, poverty and the environment. Chapter 3 of the Programme of Action urges that population factors - including not only population growth and age structure but also distribution, migration and reproductive health - be integrated into planning for sustainable development and a healthy environment. The significant influence of the status of women and girls on factors important to demographic transition and to the achievement of sustainable development is also emphasized, as is the involvement of women in population and environmental decision-making at all levels.

11. At the international level, discussions of environment and population issues raised at the United Nations Conference on Environment and Development have continued. Several regional conferences were organized in 1992 and 1993 focusing on the theme of population and sustainable development. For instance, the Bali Declaration, in Asia and the Pacific, and the Amman Declaration, in the Arab States, have both underscored the interconnectedness of population factors and environmental protection. The same theme was conveyed in the South Pacific by the Port Vila Declaration, which emphasizes that despite the differing circumstances of the small island developing States, all countries and territories mutually share a strong affinity with and dependence on land and ocean resources for their livelihood. Those resources have been under increasing pressure due to continuing population growth, expanding economic activities and natural disasters.

12. In Latin America and the Caribbean, on the other hand, attention was called to the fragile ecosystems in the rural areas that are continually endangered by the rapid expansion of human settlements. In Africa, a strategic framework of action to enable countries to address the problem of eradicating poverty through sound environmental management was developed by Economic Commission for Africa (ECA). Among the strategic areas identified were managing demographic change and pressures, achieving self-sufficiency and food security, and ensuring efficient and equitable use of water resources. At the 1993 European Population Conference, on the other hand, the main issues considered were population growth, age structure and international migration.

13. Both the Conferences in Rio de Janeiro and Cairo gave greater attention and visibility to the linkages between population growth and the environment, which has also been reflected in reports at the country level. For example, Nigeria has reported that its high population growth rate has led to an unacceptable level of natural resource extraction, thus defeating attempts to achieve sustainability. Likewise, Burkina Faso's high population growth rate has been correlated with the increasing rate of water extraction and the subsequent decline in water quality and quantity. In China, despite a decreasing population growth rate, the increasing increments in population size and soil erosion have led to a continuous decline in the amount of arable land per capita. In Bangladesh, the rapid increase in urban population was primarily caused by the heavy flow of rural migrants to urban areas in search of work and the inability of the rural areas to absorb and sustain further population increase. This phenomenon has put severe stress on the ability of municipalities to provide basic infrastructure and services, such as safe water, sewerage, sanitation and transportation.

14. A number of developed countries and economies in transition have similar problems. In Australia, urban migration and urban development have posed difficulties with regard to the treatment and disposal of sewage, industrial effluent associated with manufacturing processes and solid waste. Likewise, suburban sprawl, which has led to increased consumption of fossil fuel through extended commuting, disturbs the fragile ecosystems and permanently removes prime arable land from agricultural production. In other industrialized countries, particularly in Eastern Europe and the Commonwealth of Independent States, attention has been focused on the degradation of the environment and its subsequent impact on the health of the population.

15. In general, however, most countries recognize that the linkages between population and environment are not always clear and are often intricate and complex. In fact, the complexity of the interface has made it difficult to put into operation and translate the concepts into concrete plans and action programmes. Thus, a carefully targeted training programme to upgrade national skills in sustainable development planning and the development of better integrative methodologies are essential. Towards this end, efforts by the United Nations system have been put into training and developing methodologies and analytical tools to enhance understanding of the interactions between population and environment variables. For instance, the courses offered under the UNFPA Global Programme of Training in Population and Sustainable Development include population dynamics and environmental issues, decentralized planning, research techniques and computer training. The five institutions at which training is taking place are located in various regions of the developing world: Africa, Arab States, Asia and Latin America. Likewise, as discussed in the report on promoting education, public awareness and training (E/CN.17/1997/2/Add.26), UNESCO is increasingly emphasizing, in addition to basic education, population education and education for sustainable development.

16. Many countries have attributed the difficulty of integrating population and environment concerns into national planning and local programming to lack of data; lack of a critical mass of appropriately trained technical staff; and lack of guidelines. In response to these concerns, UNFPA country support teams are providing critical support to national Governments in collecting data on

population and environment and training national staff on methodologies and techniques in integrating population and environmental variables into development programmes. Also, in response to the last concern, UNFPA, in collaboration with the World Conservation Union (IUCN), has prepared a guidebook emphasizing the integration of the population/resource balance in sectoral planning exercises. It is particularly useful to local planning units and national planning ministries in developing countries.

17. Central to the integration of population factors into sustainable development policy and programme formulation is the provision of reliable and timely information relevant to population and environment decision-making. Thus, the CELADE regional population database for Latin America and the Caribbean (DOCPAL) has been a useful source of information, providing a number of services, including access to national databases on CD-ROM. The scope of DOCPAL has been expanded to cover population and environment information.

18. A number of computer-aided tools are being developed to integrate population and environment information. CELADE is developing a microcomputer-based tool to help such integration. On the other hand, the focus of the database for population and research (PRED Bank 2.0) is the interrelationship between population pressure and land use in rural areas. The programme was designed by the Population Division of the United Nations Secretariat as part of the Integrated Software Package for Geographical Information, Maps and Graphics (POPMAP). These tools are designed to be of assistance to planners at the national and local levels, particularly in improving the basis for decision-making by officials responsible for implementing population and environment policies and programmes.

19. Overall, what the two Conferences have achieved is a consensus that, although population growth is but one of many factors that undermine the environmental resource base upon which sustainable development ultimately depends, it is a significant factor. It is now widely acknowledged that population policies and programmes can have beneficial effects on the environment and overall development. High population growth rates make it more difficult for countries to channel adequate investments to the social sector and to expand basic infrastructure. The challenge of the Conferences remains how to reduce both unsustainable consumption and production patterns and the negative impacts of demographic factors on the environment.

IV. PROMISING CHANGES

20. Population and gender issues and their relationship to sustainable development figured prominently in the Conference in Rio de Janeiro and Cairo. Since then, more attention has been given to the critical role of women in population and environment programmes and in achieving sustainable development. Both chapter 5 of Agenda 21 and chapter 3 of the Programme of Action stress that the empowerment of women is essential and that improving the status of women - through better access to education, reproductive health services, including family planning and sexual health, and jobs - is an end itself and will yield high returns in terms of sustainable development.

21. Women grow a substantial proportion of the world's food, particularly in sub-Saharan Africa, Asia, Latin America and the Caribbean. There is considerable evidence that their labour-intensive food production practices tend to be more environmentally sound than others and could help to protect the resource base.

22. Throughout the developing world, women have demonstrated that they can make vital contributions to resource management and conservation. In India and China, for example, women have developed traditional methods designed to conserve the soil. Similarly, in Nepal, women have been responsible for reforestation of denuded slopes, greatly reducing soil erosion.[4] As resource managers, women in developing countries perform various roles: as providers of food, fuel, fodder and water; as caretakers of their family's health, by maintaining sanitary conditions around the house and by safely disposing of household wastes; and as conservationists, by safeguarding forests, soil, water and grazing areas. Thus, since the two Conferences, there are positive indications that in many parts of the developing world, the vital role of women as agents of change and as managers of both environment and reproduction has been duly recognized.

V. UNFULFILLED EXPECTATIONS

23. Despite the progress made since the two Conferences, particularly in raising the awareness of population and environment issues, much remains to be done. Although countries acknowledge that it is necessary to integrate population and environmental considerations, doing so has been difficult. Some constraining factors are inadequate data, insufficient trained human resources and lack of financial resources. Population and environment issues are so intertwined that piecemeal solutions will not suffice.

24. Sufficient funding should be made available for policy-oriented research focusing on priority environmental problems, particularly in developing countries where demographic pressure upon the natural resource base is increasing. For instance, there is need to identify ecologically endangered areas where overexploitation of natural resources and rapid population growth create serious problems: forested uplands, coastal fishing areas, small-holder agriculture in lowland areas, arid grazing lands and tropical forests.

25. Moreover, it is equally important to undertake research on populations at risk due to environmental degradation. Priority research[5] should focus on: coastal areas where populations are growing rapidly and critical resources are being depleted at an accelerated rate, such as on highly urbanized coasts; soil erosion and desertification, linked with inappropriate land-use practices often brought on by migration patterns; water scarcity, and misuse and pollution of water resources in both rural and urban areas; and deforestation resulting from inappropriate shifting cultivation patterns, fuelwood demands, and conversion of forests in upland areas to other uses, linked with demographic pressures among the poorest groups in society.

VI. EMERGING PRIORITIES

26. The need to address the interrelationships between changes in the environment and migration has emerged as a global concern, given the number of persons displaced by environmental degradation. According to the International Organization for Migration, it is estimated that in 1996, 25 million persons are environmentally displaced worldwide.[6] In fact, the number of people at risk of environmental displacement is bound to grow. In Kenya, as a consequence of the current desertification and soil degradation processes, the country will almost certainly produce large numbers of environmentally displaced persons. The case of Kazakstan and Uzbekistan, on the other hand, is illustrative of severe environmental deterioration that has led to mounting pressures towards mass migration.[7] In general, most of the environmentally displaced persons live in the African Sahel, the Horn of Africa, other parts of sub-Saharan Africa, the South Asian subcontinent, Mexico and China. The majority of these areas are also characterized by relatively rapid population growth.

27. Environmentally induced migrations are caused by natural disasters, such as earthquakes, flash flooding, typhoons, and volcanic eruptions; by nuclear and hazardous waste contamination; by agricultural and rural decline, resource pollution, chronic water shortages; or by dam construction and other large-scale development projects. On the other hand, environmental problems associated with mass migration could include deforestation, soil erosion and water contamination or depletion. Very often, large-scale and sudden movements into areas of already declining environmental and socio-economic conditions lead to a reduction in migrants' well-being; damage to the natural resource base on which the local economy depends; economic and political difficulties for the host areas; and erosion of efforts made by Governments and the international community to support sustainable development in both areas of origin and host areas.

28. There is an urgent need to respond to the twin challenge of preventing population movements triggered by environmental damage and mitigating the damage caused by mass migrations. Efforts should be made to apply existing scientific and technological potential in order to prevent situations that often lead to population displacements.

VII. CONCLUSIONS

29. Although there has been increased awareness of the importance of demographic trends and factors to achieving sustainable development since the Conferences in Rio de Janeiro and Cairo, much remains to be done to achieve the goals and recommendations of Agenda 21 and of the Programme of Action. Many countries are still experiencing difficulties in integrating population and environmental concerns into national and local development programming efforts. Inadequate data, lack of trained human resources and financial constraints have hampered such efforts. In addition, national population and sustainable development policies need to be broadened and linked with efforts in the area of health, including reproductive health, education, condition of women, poverty reduction and the environment.

30. Addressing the concerns of population, environment and sustainable development will require further collaboration and coordination, at both the national and international levels. Efforts should continue to enhance the full participation of all relevant groups, especially women, at all levels of population and environmental decision-making. Also essential are support to strengthen national capacity and capability in the fields of population and environment, development of relevant information systems, research and training, and financial resource mobilization.

Notes

[1] Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] See "Report of the International Conference on Population and Development, Cairo, 5-13 September 1994" (A/CONF.171/13), chap. I, resolution 1, annex.

[3] World Population Prospects: The 1996 Revision, Annex I: Demographic indicators (United Nations publication, to be issued).

[4] UNFPA, Safeguarding the Future (United Nations publication, Sales No. E.89.III.H.2), p. 29.

[5] See UNFPA, Population, Resources and the Environment: The Critical Challenges (New York: UNFPA, 1991), pp. 115-117.

[6] "Report of the International Symposium on Environmentally-induced Population Displacements and Environmental Impacts Resulting from Mass Migrations, Geneva, 21-24 April 1996", p. 15.

[7] Ibid., p. 37.

UNITED NATIONS **E**

Economic and Social Council

Distr.
GENERAL

E/CN.17/1997/2/Add.5
15 January 1997

ORIGINAL: ENGLISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fifth session
7-25 April 1997

Overall progress achieved since the United Nations Conference on Environment and Development

Report of the Secretary-General

Addendum

Protecting and promoting human health*

(Chapter 6 of Agenda 21)

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* The report was prepared by the World Health Organization (WHO) as task manager for chapter 6 of Agenda 21, in accordance with arrangements agreed to by the Inter-Agency Committee on Sustainable Development (IACSD). It is the result of consultation and information exchange between United Nations agencies, international and national organizations, interested government agencies and a range of other institutions, individuals and major group representatives.

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INTRODUCTION

1. The present report reviews progress made in the implementation of the objectives set out in chapter 6 of Agenda 21 (Protecting and promoting human health),[1] taking into account the decisions taken by the Commission on Sustainable Development on this subject in 1994 at its second session.

I. SELECTING KEY OBJECTIVES

2. Principle 1 of the Rio Declaration on Environment and Development[2] states that:

> "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."

3. To achieve this goal, it is essential that health be fully incorporated in global, national and local sustainable development plans. The health component of such plans should address the key objectives spelled out in chapter 6 of Agenda 21, namely (a) meeting primary health care needs, particularly in rural areas, (b) control of communicable diseases, (c) protecting vulnerable groups, (d) meeting the urban health challenge and (e) reducing health risks from environmental pollution and hazards.

4. The Commission on Sustainable Development, in its decision in 1994 concerning human health, added important new concerns, for example, the need to change consumption and production patterns to ensure that products and production processes with adverse health and environmental effects gradually disappear. It also, inter alia, called for the integration of health into environmental impact assessment procedures and establishing adequate structures for environmental health services at the local level.

5. The Commission on Sustainable Development also identified five priority areas for Inter-Agency Committee on Sustainable Development (IACSD) consideration: (a) supporting countries in development of national environmental health plans as part of national sustainable development programmes; (b) extending scientific and public understanding of the cumulative effects of chemicals in consumer products, plant- and animal-based food, water, soil and air on human health; (c) determining mechanisms that identify and control newly emerging infectious diseases and their possible environmental linkages; (d) providing a status report on the health implications of the depletion of the ozone layer; and (e) developing an effective and efficient environmental health information system.

6. For the purposes of this summary report, the following key objectives have been selected for presentation:

(a) Incorporating health in sustainable development plans;

(b) Establishing adequate structures for environmental health services at the local level;

(c) Developing an effective and efficient environmental health information system;

(d) Incorporating health in environmental impact assessments;

(e) Health implications of climate change and depletion of the ozone layer;

(f) Protecting the food supply from environmental hazards;

(g) Extending understanding of the cumulative effects of chemicals;

(h) Environmental determinants of emerging (and re-emerging) diseases.

7. Each of these objectives appears in the following sections only when there is something to be reported.

II. REPORTING ON AND ANALYSING SUCCESS

A. Incorporating health in sustainable development plans

National

8. Just over one third of the 74 countries that reported on progress to the Commission on Sustainable Development have incorporated health into their reports. Different approaches are being used for promoting health sector involvement with other sectors in addressing health and environment-related issues. In some countries, health and environment-related plans have been prepared for inclusion in the national plans for sustainable development. In others, sectoral plans have been reviewed and modified to include health and environment-related concerns.

Local

9. A dramatic result of the Rio Conference has been the large number of local Agenda 21 initiatives, especially in cities but also in villages and even islands. Many of these feature health and health-related objectives and activities. The World Health Organization (WHO)/Regional Office for the Americas (AMRO) is promoting the concept of and methodologies for primary environmental health care, aiming at a larger and more systematic community participation in the focus of attention on environmental health risks. A parallel and closely related initiative has been the Healthy Cities movement. Examples from all continents, all involving networks of municipal authorities, professionals and citizen groups, were considered at the United Nations Conference on Human Settlements (Habitat II) "Dialogue on creating healthy cities in the twenty-first century. Much has been learned about how to promote health in cities by building on local resources and capacities, and linking such actions to local Agenda 21. The local Agenda 21 planning guide, prepared in

1996, makes explicit many health and health-related issues that should be taken into account in the steps of community-based issue analysis, drawing in some instances from the case studies included.

B. Health implications of climate change and depletion of the ozone layer

10. Documentation concerning specific health and environment linkages have been prepared since Rio. One of these concerns the impact of climate change on human health. This was addressed by a task group for WHO, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) and a monograph on this subject has been published which examines in considerable detail the potential implications of major components of climate change, including those associated with the depletion of the ozone layer.

11. WHO, WMO, UNEP and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) have issued a joint recommendation concerning the Global Solar UV Index which provides information in regard to raising public awareness of the potential harm of exposure to sun and to alerting people to the need to adopt protective measures. These agencies have also initiated a multi-centre international research project to measure more accurately the harmful effects of excessive solar ultraviolet (UV) radiation on the eyes and skin.

C. Protecting the food supply from environmental hazards

12. Since 1962, the Food and Agriculture Organization of the United Nations (FAO)/WHO Codex Alimentarius Commission has developed an impressive body of food standards, guidelines and other recommendations which includes, inter alia, maximum limits on pesticides, contaminants and other hazards. While non-compulsory, the work of Codex has been widely accepted because it is based on sound scientific risk assessment. With the successful conclusion of the General Agreement on Tariffs and Trade (GATT) Uruguay Round of multilateral trade negotiations which established the World Trade Organization on 1 January 1995, Codex recommendations related to health and safety are recognized by the World Trade Organization as representing the international consensus in respect of the evaluation of the appropriateness of national health and safety requirements. Consequently, the Codex has become the basis for the international harmonization that will serve to promote protection of the consumer from environmental hazards while facilitating international trade in food.

III. PROMISING CHANGES

A. Incorporating health in sustainable development plans

13. The call for health for all by the year 2000 has provided a motivational and unifying concept in international health development. Recognizing that "health for all" still serves as an inspirational goal for all countries, WHO has initiated a process for renewing the health for all strategy. The process

itself will lead to an improved understanding of the obstacles to achieving the objectives agreed upon at Rio and other major United Nations conferences, and will lead countries to formulate new strategies that are based upon equity and human rights.

14. Regional conferences have brought together ministers of health and the environment and have led to further commitments to attaining long-term environment and health policy objectives. The second European Conference on Environment and Health, which was held in Helsinki in 1994, developed a framework for the environmental health actions in Europe including a guide for the development of national plans of action. The target date for establishing these action plans is 1997.

15. The Pan American Conference on Health and Environment in Sustainable Human Development was organized by WHO's American region in October 1995. This Conference adopted the Pan American Charter on Health and Environment in Sustainable Human Development and a Regional Work Plan. Another outcome has been the proposed development of a Regional Plan for Investment in the Environment and Health (PIAS) which identifies the investment in the region over the next 12 years needed to overcome deficiencies in the health services infrastructure, the drinking-water supply and basic sanitation.

16. The second Conference on Health, Environment and Development of the Eastern Mediterranean Region held in November 1995 adopted the Beirut Declaration on Action for a Healthy Environment, in which countries pledged, inter alia, to prepare their action plans for health and environment as part of their sustainable development plan no later than 1999.

17. The ministers for the environment of the seven major industrialized nations (G-7), who met in May 1996, decided, for the first time, to give priority to the relation of health and environment so as to highlight the fact that the protection of public health has been and remains a fundamental objective of environmental policies (see document A/51/208-S/1996/543, annex I).

B. Establishing adequate structures for environmental health services at the local level

18. Africa has the most pressing water supply and sanitation needs in the world. Despite large investments in the sector during the International Drinking Water Supply and Sanitation Decade (1981-1990), these needs are still important. A major obstacle is the difficulty of ensuring the sustainability of services once they are in place. The Africa 2000 initiative was launched in 1994 to help overcome this obstacle and to accelerate sector development through increased investment and better use of funds. A key feature of this initiative is its emphasis on a participatory approach to improved water supply and sanitation in rural areas. Another key aspect of Africa 2000 is its focus on operation, maintenance and management of urban and rural water supply and sanitation facilities. Different tools have been developed and their testing has been initiated.

19. At Habitat II, a new global agenda[3] for sustainable human settlements development, which recognizes the need for an increased role for local authorities in sustainable development, was agreed to. A much greater readiness of national Governments to consult with them in development planning was apparent. This has led to the planning of a series of consultations with local government organizations (notably, the Group of 4 +, the International Union of Local Authorities (IULA), UTA, and the Regional Network of Local Authorities for the Management of Human Settlements in Asia and the Pacific (CITYNET), among others), which represent thousands of cities and local authorities worldwide, to promote health in their planning and management activities using Healthy City/Healthy Village-type approaches.

20. High refugee concentrations, sometimes occurring rapidly, are increasingly becoming a feature of local situations. They often lead to degradation of renewable natural resources which contributes to health risks of many kinds: food shortage, contaminated drinking water, dust and smoke, and increased disease-carrying vector-breeding. The Office of the United Nations High Commissioner for Refugees (UNHCR), jointly with the International Federation of Red Cross and Red Crescent Societies and WHO is preparing a practical guide to environmental health management in disasters and emergencies. UNHCR has recently published a document on environmental guidelines that specifically addresses the issue of impacts on the health of refugees due to environmental problems.

C. Developing an effective and efficient environmental health information system

21. Capacity-building, methodology development and improved information access, which are essential for the success of any local initiative, are the focus of the WHO initiative Information for Decision-making in Environment and Health (IDEAH). Indicators are developed for the major links between key economic and environmental driving forces and health effects. These linkages can then be analysed to help local authorities plan more effective action.

22. In the American region, a project is in process that aims at integrating the different existing databases relevant to environmental health. The Latin American and Caribbean Health Services Information Center (BIREME), the Pan American Center for Sanitary Engineering and Environmental Services (CEPIS) and the Pan American Center for Human Ecology and Health (ECO) are participating in this effort. ECO is a source of much technical information; CEPIS manages the Pan American Information Network on Environmental Health. The last-mentioned can be accessed through the Internet.

D. Incorporating health in environmental impact assessments

23. The WHO, FAO, UNEP and United Nations Centre for Human Settlements (Habitat) Panel of Experts on Environmental Management of Vector Control (PEEM) promotes incorporation of health concerns within the context of developmental projects. Various guidelines have been prepared outlining how development project planners should incorporate health in their impact assessments.

24. In line with relevant decisions taken by the European Environment and Health Committee, concrete steps are being taken under the Convention on Environmental Impact Assessment in a Transboundary Context to integrate the health component into the environmental impact assessment (EIA) procedure.

25. There are a growing number of development projects in which health needs of the population in the project areas are being given greater prominence. One recent development is the inclusion of a human health component in the wetlands conservation programme of the World Conservation Union (WCU). Another is FAO's promoting the findings of the PEEM programme in the construction and management of irrigation systems to reduce the likelihood of creating suitable habitats for disease vectors. Overall, however, progress has been of an ad hoc nature.

E. Extending understanding of cumulative effects of chemicals

26. In response to the United Nations Conference on Environment and Development, an Intergovernmental Forum on Chemical Safety (IFCS) was established in 1994 to facilitate cooperation between Governments, and intergovernmental and non-governmental organizations. At its first meeting in Stockholm in 1994, IFCS recommended that 200 additional chemicals should be targeted for evaluation of potential effects on health and the environment by 1997 and, if this target was met, that another 300 chemicals be evaluated by the year 2000.

27. In response to the need expressed in chapter 19 of Agenda 21 to produce guidelines for acceptable exposure to a greater number of chemicals, the Joint FAO/WHO Expert Committee on Food Additives and the FAO/WHO Joint Meeting on Pesticide Residues have continued to develop guidelines for tolerable intake levels for contaminants and acceptable intake levels for pesticides, respectively. The WHO Guidelines for Drinking-water Quality have been updated and will be subjected to rolling revision procedures. WHO air quality guidelines for Europe are due in 1997, updated. Guidance values for exposure are being provided in the Environmental Health Criteria published since 1993.

28. In the field of methodology for risk assessment and for the derivation of guidelines for exposure to chemicals, work has been undertaken by the International Programme on Chemical Safety (IPCS) and the Organisation for Economic Cooperation and Development (OECD) in a coordinated manner to promote the development, improvement and harmonization of methodologies for risk assessment as well as for toxicity testing.

29. A promising innovation for accelerating production of comprehensive assessments of chemicals is the development of a new concise series of risk assessment documents based on high-quality national reviews. A pilot phase for Concise International Chemical Assessment Documents (CICADs) is being undertaken on 21 chemicals.

F. Environmental determinants of emerging (and re-emerging) diseases

30. The Commission on Sustainable Development's decision to focus on emerging diseases reflects a consensus that the battle against infectious disease is far from won, as attested by both the occurrence of "new" diseases, never before seen in human beings, and the resurgence of diseases thought to be on the decline.[4] In 1995, WHO established the Division of Emerging and other Communicable Diseases Surveillance and Control (EMC). Its mission is to strengthen national and international capacity in the surveillance and control of communicable diseases, including those that represent new, emerging or re-emerging public health problems.

31. Recognizing that environmental factors, for example, land use and water management, often play an important role in disease epidemiology and risk, the United Nations Development Programme (UNDP)/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) has, since 1994, been funding research that seeks means for reducing the impact of development projects on the risk for tropical diseases, in particular malaria, schistosomiasis, leishmaniasis and onchocerciasis. FAO is participating in this activity and promoting the inclusion of human health aspects of land use in research and education (for example, as it pertains to the quantification, possibly economic, of the malaria risk component).

IV. UNFULFILLED EXPECTATIONS

A. Incorporating health in sustainable development plans

The first principle of the Rio Declaration has yet to be translated into action

32. The "health gap" has widened since Rio, owing to the growing number of extremely poor people in the world, and the growing gap between rich and poor, between educated and uneducated, and between men and women, in developed and less developed countries, as documented in WHO's The World Health Report 1995: Bridging the Gaps.[5]

33. The pursuit of health is a never-ending one, and is to be engaged in on many fronts, as reflected in Agenda 21, but results to date reveal that unacceptably slow progress is being made. Health is still too often understood only in terms of medical care services, and in many countries, health is seen as the responsibility solely of the ministry of health. Even major issue papers prepared within the United Nations system, for example on the environment and rural development, neglect the human health dimension. Furthermore, highly relevant inter-agency programmes are being undermined by the growing pressure on individual agencies to withdraw their support and participation in light of current budget constraints and competing priorities.

34. As a consequence of various economic reforms, including structural adjustment, government-provided social services have been cut back in many countries. The health sector has not been spared. Growing financial

constraints have led to health sector reforms, but these have largely been restricted to ensuring the financial viability of curative services and the development of private care services. In the process, public health has been neglected along with the contribution of other sectors to health.

B. Incorporating health in environmental impact assessments

35. The integration of health impact assessment into environmental impact assessment (EIA) is not taking place as recommended by the Commission on Sustainable Development, in spite of the few promising developments mentioned above. It is being held up by various bottlenecks. The donor agencies that have made loans and grants conditional on EIA have done relatively little to broaden the health dimension of their assessment methodologies. Desk officers are geared to conservation and global environmental issues, and their health counterparts have not moved beyond the delivery of health-care services.

36. There are conservative factors that are connected with the workings of the national Governments themselves, including their ministries of health. Development projects with known negative social and health impact have been approved by planning ministries. The lack of analytic capacity within most ministries handicaps their participation as full partners in the intersectoral negotiations that must take place in any serious EIA exercise.

V. EMERGING PRIORITIES

37. The overriding goal for the future must remain the incorporation of health in national sustainable development plans. To recognize that human health is interwoven with development plans in a multifaceted manner, as exemplified by the diversity of objectives to be covered in achieving this goal, is to recognize equally that there is no single strategy to be pursued. As clearly specified in chapter 6 of Agenda 21, "countries ought to develop plans for priority actions, drawing on the programme areas in this chapter, which are based on cooperative planning by the various levels of government, non-governmental organizations and local communities" (para. 6.1).

38. At this stage in the implementation of Agenda 21, the Commission on Sustainable Development should reaffirm its commitment to the incorporation of health in national sustainable development plans, as called for by the first principle of the Rio Declaration, while giving priority to areas where it has the greatest influence. Three priorities are proposed: (a) improving the understanding of the relationship between health and social, economic and environmental driving forces, (b) incorporating health in environmental impact assessments and (c) strengthening the role of local government.

A. Improving the understanding of the relationship between health and social, economic and environmental driving forces

39. Human health has always been strongly influenced by social, economic and environmental factors. However, whereas in the past these factors were largely determined by driving forces operating locally, today these forces are both local and global in nature. Our understanding of them is not very advanced, despite continuing study. Ignorance of the various ways that health is influenced by these driving forces may be one reason for the health sector's isolation and lack of influence in national and global policy-making. However, growing public and policy maker awareness of the strong relationship among human health, the environment and development is occurring, as exemplified in several of the points covered above.

40. In order to build on this growing understanding, the Commission on Sustainable Development should focus on the relationship between human health and selected issues of its agenda, for example, consumption and production patterns, including trade, employment and sustainable livelihoods, and energy and transport. It may wish as well to incorporate within this priority certain areas whose importance it has already highlighted, in particular expansion of the understanding of the cumulative effects of chemicals, and environmental determinants of emerging and re-emerging diseases.

B. Incorporating health in environmental impact assessments

41. This objective, which was highlighted in the decision of the Commission on Sustainable Development in 1994, remains one of the key pillars with respect to placing human beings "at the centre of concerns for sustainable development". As long as Governments and supporting bilateral and multilateral donor agencies continue to ignore the health impact of development projects, they are in effect saying no to human development. This is an issue whose ramifications go well beyond the question of what the health sector can hope to achieve on its own without the support of all of its partners, and is thus most suitable for continuing emphasis by the Commission on Sustainable Development.

C. Strengthening the role of local government

42. In many countries, city problems were often assumed to be the responsibility of national or provincial/state agencies. One of the critical changes that occurred between the first United Nations Conference on Human Settlements in 1976 and the second, (Habitat II) in 1996, has been the shift in emphasis away from what national Governments should do to how national and provincial Governments should support the efforts and initiatives of those living and working in cities. The United Nations conferences after Rio (the International Conference on Population and Development (Cairo, 1994); the World Summit for Social Development (Copenhagen, 1995); and the Fourth World Conference on Women (Beijing, 1995)) all contributed to this stronger local emphasis. This includes supporting the efforts of city and municipal authorities and of individual households, community organizations,

non-governmental organizations and private sector institutions. Agenda 21 fully supported this development, particularly when it called on local authorities to undertake a consultative process to achieve "a consensus on 'a local Agenda 21' for the community". The growing number of local agenda 21 programmes is proof of the operational viability of Agenda 21; less clear perhaps is how the international community can harness this energy to bring about comparable changes at all levels of society. The Commission on Sustainable Development should actively continue to promote these initiatives and develop mechanisms that keep in sharp focus all of the important dimensions of sustainable development, including that of human health.

Notes

[1] Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] Ibid., annex I.

[3] See Report of the United Nations Conference on Human Settlements (Habitat II), Istanbul, 3-14 June 1996 (A/CONF.165/14), chap. I, resolution 1, annex II, "The Habitat Agenda".

[4] The World Health Report of 1996: Fighting Disease/Fostering Development (Geneva, Who, 1996) reports on the current infectious disease threats and the actions needed for their control.

[5] Geneva, Who, 1995.

UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/CN.17/1997/2/Add.6
27 January 1997

ORIGINAL: ENGLISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fifth session
7-25 April 1997

Overall progress achieved since the United Nations Conference on Environment and Development

Report of the Secretary-General

Addendum

Promoting sustainable human settlement development*

(Chapter 7 of Agenda 21)

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* The present report was prepared by the United Nations Centre for Human Settlements (Habitat) as task manager for chapter 7 of Agenda 21, in accordance with arrangements agreed to by the Inter-Agency Committee on Sustainable Development (IACSD). It is the result of consultation and information exchange between United Nations agencies, international and national organizations, interested government agencies and a range of other institutions, individuals and major group representatives.

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INTRODUCTION

1. The present report reviews progress made in the implementation of the objectives set out in chapter 7 of Agenda 21 (Promoting sustainable human settlement development),[1] taking into account the decisions taken by the Commission on Sustainable Development on this subject in 1994 at its second session.

2. Rapid urbanization, the concentration of urban population in large cities, the spread of cities into wider geographical areas and the rapid growth of megacities are among the most significant transformations of our time. Urban settlements hold promise for the protection and careful use of the world's natural resources through their ability to support large numbers of people while limiting their impact on the natural environment. Human settlements should therefore be at the centre of concern for sustainable development, as they are essential for social and economic progress and, in an increasingly interdependent world, critical for the well-being of both urban and rural populations (see box 1).

Box 1. The multiple goals of sustainable development as applied to cities

Meeting the needs of the present ...

- Economic needs: include access to adequate livelihood or productive assets from which this can be gained; also minimum income or economic security when unemployed, ill, disabled or otherwise unable to secure livelihood.

- Social, cultural and health needs: include shelter that is healthy, safe, affordable and secure, within a healthy neighbourhood environment with provision for piped water, sanitation, drainage, transport, health care, education and child development. They also include a home, workplace and living environment protected from environmental hazards, including chemical pollution. Equally important are needs related to people's choice and control - including homes, neighbourhoods that they value and where their social and cultural needs and priorities are met. Shelters and services must meet specific needs of children, adolescents and adults responsible for child-rearing (usually women). Achieving this implies a more equitable distribution of income within and between nations.

- Political needs: include freedom to participate in national and local politics and in decisions regarding management and development of own home and neighbourhood, within a broader framework that ensures respect for civil and political rights and respect for environmental legislation.

... Without compromising the ability of future generations to meet their own needs

- Minimizing use of waste of non-renewable resources: includes minimizing consumption of fossil fuels in housing, commerce, industry and transport plus substituting renewable source where feasible and reducing use and minimizing waste of scarce mineral resources (reducing use, reusing, recycling, reclaiming). There are also cultural, historical and natural assets within cities that are irreplaceable and thus non-renewable, for instance, historic districts and parks and natural landscapes that provide city inhabitants with space for play, recreation and access to nature.

- Sustainable use of renewable resources: includes cities drawing on freshwater resources at levels that can be sustained; keeping to a sustainable ecological impact in terms of land area on which producers and consumers in any city draw for agricultural crops, wood products and biomass fuels.

- Keeping wastes from cities within the absorptive capacity of local and global sinks: includes the capacity of rivers to break down biodegradable wastes and methods to deal with persistent chemicals, including greenhouse gases, stratospheric ozone-depleting chemicals and persistent pesticides.

Source: Diana Mitlin and David Satterthwaite, "Cities and sustainable development", background paper to Global Forum '94, Manchester City Council, June 1994.

I. SELECTING KEY OBJECTIVES

3. In the five years since the Earth Summit, the following four priorities to advance sustainable human settlements development have emerged: (a) shelter for all; (b) improved urban management capacity; (c) improved environmental infrastructure and services; and (d) inclusive and gender-sensitive human settlements plans and strategies, including local Agendas 21. Priorities for international support to human settlements development have focused on policy advice; capacity-building; partnerships with local authorities and other major groups, including the private sector and non-governmental organizations; and networking and exchange of best practices in human settlements development and management. The Habitat Agenda,[2] the global plan of action adopted by the second United Nations Conference on Human Settlements (Habitat II), provides a detailed strategy for sustainable shelter and human settlements development based on the principles of partnership and enablement.

4. The effort made during the five years since the Earth Summit in regard to carrying out numerous activities to advance sustainable human settlements development is commendable. In many significant ways, the preparatory process for Habitat II served to accelerate this process and acted as a catalyst for the launching of new activities as well as for furthering United Nations system-wide collaboration. The Habitat Agenda not only represents a reconfirmation of Agenda 21, but also provides a holistic operational framework for implementing the relevant decisions and recommendations of a decade of United Nations conferences.

II. REPORTING ON AND ANALYSING SUCCESS

A. Shelter for all: formulation of national shelter strategies

5. Since the United Nations Conference on Environment and Development, 80 countries have drafted new or reformulated their existing housing policies and strategies in line with the recommendations of the Global Strategy for Shelter to the Year 2000.[3] A major objective of these strategies is to accelerate construction and improvement of housing for and by low-income groups. The focus, furthermore, has been on strategies that are environmentally sustainable, especially in regard to land use, building technologies and materials employed, as set out in Agenda 21, and as reconfirmed in the Habitat Agenda. Emphasis is also given to the need to develop efficient land and housing markets that broaden access of security of tenure and credit, a goal for women and men that is linked to, and in many ways dependent on, progress in the broader areas of economic reform. Formulation of new national shelter strategies has been assisted by efforts on the part of the United Nations Centre for Human Settlements (Habitat) and the World Bank in helping over 100 countries to develop quantitative, policy-sensitive housing and urban indicators to help set priorities and guide the policy formulation process.

6. One of the key commitments entered into by Governments in adopting the Habitat Agenda is to work towards the full and progressive realization of the right to adequate housing. Efforts in this direction will, first and foremost, aim at expanding access to housing fo. low-income groups and will address such

key issues as security of tenure. The commitment to the right to adequate housing is considered one of the key achievements of Habitat II and opens the way to further progress in shelter accessibility in the coming years.

7. In most countries that formulated national shelter strategies, the process of implementation has begun. This will be given added impetus as nations engage in broader legislative and policy reforms. The implementation of enabling shelter strategies requires support by a broad constituency, which must include local authorities and the private sector. It is hoped that grass-roots initiatives, encouraged by Habitat II, will contribute to making such partnerships concrete.

B. Improved urban management capacity

8. The second key objective in implementing chapter 7 of Agenda 21 is management improvement and capacity-building, in order to assist local authorities in facing the challenge of rapid urbanization and environmental sustainability. Experience has demonstrated that a strongly participatory approach to urban management results in increased commitment of key actors and stakeholders. Increased awareness of the value of stakeholder involvement in human settlements support programmes is resulting in projects with a higher rate of successful implementation and replication. Local authority associations and organizations have also increasingly strengthened their networking internationally, regionally and nationally, establishing the basis for productive partnerships in support of improving local self-government as an essential element in capacity-building.

9. Since the United Nations Conference on Environment and Development, the Urban Management Programme (UMP) has emerged as the principal United Nations-system effort to improve urban management capacity in developing countries and is currently active in 55 countries with the support of 10 bilateral external support agencies. The principal methods of work are capacity-building at both country and regional levels, facilitating dialogue on policy and programme options that draw on developing-country experts, and developing mechanisms for technical cooperation among developing countries (TCDC). A number of such new programmes have been launched in the post-Rio period. The most successful of these are multi-agency programmes such as the Sustainable Cities Programme (SCP). As a joint Habitat-United Nations Environment Programme (UNEP) facility promoting participatory approaches to environment planning and management, the Sustainable Cities Programme spearheads the United Nations efforts in this field, and its work over the last five years has catalysed similar initiatives by others.

C. Improved environmental infrastructure and services

10. One of the most promising ways to improve the quality and range of infrastructure services for the urban poor is to draw on the resources and experience of the communities themselves. Over the past years, national and international non-governmental organizations in many developing-country cities have demonstrated that much can be achieved even with modest resources. The

successes have been achieved as a result of programmes undertaken by grass-roots organizations. Over the past five years, most external support agencies have increased the priority they give to working in partnership with the private sector and community groups in order to improve urban infrastructure and services. Importantly, an increasing share of financial commitments have also been made in the area of integrated urban development programmes that combine investments in various kinds of urban infrastructure and services. Many of these projects incorporate a capacity-building component to strengthen local authorities. Multilateral financial institutions, in particular, have increased their lending with regard to urban pollution control.

11. There is a growing awareness that urban technical cooperation should focus, in the long term, on developing the capacity of national and local Governments to plan, invest in and manage urban infrastructure, and on mobilizing the resources of all local actors, especially of the private sector. The challenge, however, is enormous. By 1994, for example, more than 1 billion people in urban and rural settlements were without suitable water supply.

12. A milestone in building global awareness concerning the impending urban water crisis was reached at the Beijing Water Conference in March 1996. Held in conjunction with World Day for Water, 1996, the Conference focused unprecedented media attention on the looming water crisis, especially in rapidly growing cities. Almost all of the world's major cities are today facing serious shortfalls either in water supply, or in water quality, or in both. The Beijing Conference has led to a number of follow-up consultations at the international level, geared to remedial action and involving, in particular, the World Bank and the Administrative Committee on Coordination (ACC) Subcommittee on Water Resources.

13. Developing-country cities face an equally daunting challenge in the area of sanitation. The situation is further complicated by the poverty of the millions who are without access to this most basic of services. Here, the relationships between poverty, environmental decay and decline in the quality of life of people in urban areas are most evident. Given the scale of needs, the most effective approach has been the one that supports city- and neighbourhood-based efforts that mobilize the energies of the affected population. Some United Nations programmes that take this approach include the World Health Organization (WHO) Healthy Cities Programme, the United Nations Centre for Human Settlements (Habitat)/UNEP Sustainable Cities Programme, the United Nations Children's Fund (UNICEF) Basic Urban Services Programme and the United Nations Development Programme (UNDP) Local Initiative Facility for Urban Environment.

D. National and local human settlements strategies, including local Agendas 21

14. Since the United Nations Conference on Environment and Development, and as a direct result of the Habitat II preparatory process, 138 countries have prepared detailed reports on the state of their human settlements: 127 of these contain first-step, five-year National Plans of Action for Sustainable Human Settlements Development prepared in line with the guidelines established by the Preparatory Committee for the United Nations Conference on Human Settlements

(Habitat II). The inclusive nature of plan preparation, and the information component of these plans provided by the indicators and best practices initiatives, as well the substantial donor interest in their preparation, should help to ensure that these plans will not only benefit from broad-based political and social support, but will also be more likely to be translated into tangible policies and programmes able to elicit both local and international support and financing. Most plans stress greater involvement of civil society and of major groups. Almost without exception, they emphasize the need to strengthen local authorities in their decision-making powers and in their managerial and financial capacities. What emerges from these national reports is that, for developing countries, the direct linkages between environmental improvement and the reduction of poverty through the provision of basic infrastructure such as water supply, sanitation and waste management and disposal are given priority attention. The national reports of industrialized countries, on the other hand, reflect their concern with the sustainability of production and consumption cycles in human settlements and their impact on the quality of life. In all countries, without exception, resource mobilization and identification of new sources of finance for sustainable human settlements development are a prime necessity. Ensuring the financial viability of local institutions is also a top priority, for without such viable institutions, sustainable development cannot be achieved at the local level.

15. Assiduous follow-up of these priorities will certainly influence the ultimate success of local Agendas 21 (see box 2). An important contributor to the accelerated pace of local Agenda 21 initiatives has been the work of the International Council for Local Environmental Initiatives (ICLEI), which works closely with local authorities and their associations as well as with a number of donors. One of the principal aims of the implementation of the Habitat Agenda will be to strengthen local Agenda 21 initiatives and to support their replication worldwide.

Box 2. Developing local Agendas 21

Hundreds of local authorities around the world are developing "local Agendas 21" as the means to introduce into or strengthen environmental concerns in their plans and operations. Local Agenda 21 processes differ from city to city since they reflect the different local contexts in which they are operative as well as the existing institutional structures.

Some countries have national programmes of support for such initiatives. They include Australia, the Netherlands, Denmark, Sweden, the United Kingdom of Great Britain and Northern Ireland, and Finland. In the United Kingdom, such initiatives promote local consultative processes on sustainable development; disseminate guidance for local authorities on how to move towards sustainability at a local level and on how to develop models of community consultation, participation and local consensus-building; and involve other sectors and major groups in the local Agenda 21 process at a national level. In Sweden, all local authorities have environmental strategies that include provision for waste minimization and recycling. Most municipalities have also started work on local Agendas 21. Several European countries are exploring the possibilities of linking work on local Agendas 21 to formal land-use planning systems. For instance, the city of Stockholm is currently preparing a new plan that takes a more strategic and longer-term view than previous plans and will explicitly promote the integration of environmental, social and economic goals. The new plan will become part of the local Agenda 21 for the city. In Denmark, existing planning instruments are being adapted to Agenda 21 requirements so that municipal plans become overall action plans for the environment not only nationally but also in the context of Europe.

A large number of local authorities in developing countries have developed local Agendas 21. For instance, each of the municipalities that make up the Bogotá metropolitan area in Colombia is developing its own local environmental agendas, sponsored by the metropolitan authority, non-governmental organizations and academics. Other urban centres in Colombia such as Manizales also have a well-established local Agendas 21 process. Among other cities in the South that are developing local Agendas 21 are Cajamarca in Peru, Durban in South Africa and Santos in Brazil. Both ICLEI and the United Nations Centre for Human Settlements (Habitat) are expanding their collaboration with African cities in the area of local Agenda 21 initiatives.

Source: United Nations Centre for Human Settlements (Habitat), An Urbanizing World: Global Report on Human Settlements, 1996 (Oxford, Oxford University Press, 1996), pp. 407-409.

III. PROMISING CHANGES

A. Integrated management approaches

16. Today a major emphasis is being given to local capacity-building by multilateral and bilateral donors, financing institutions and other external support agencies, as well as by non-governmental organizations and local authority associations over the past years. This issue is also closely tied to the broader issue of improvement of governance and management, which has increasingly become a focus of governmental efforts worldwide.

B. Broad-based participatory approaches

17. Central to virtually each of the success stories referred to above have been the involvement and increased activism of major groups, especially local authorities, non-governmental organizations and the private sector. In fact, all indications point to a future strategic role for United Nations agencies in promoting sustainable development by concentrating on the facilitating of new partnerships. The global and regional exchange of new knowledge and expertise derived from local best practices, as well as new networks among major groups active in human settlements development will need to be supported. Moreover, the experience of such programmes as the Sustainable Cities Programme, the Healthy Cities Programme and the Urban Management Programme, to cite just three examples, clearly demonstrates that United Nations agencies, because of their perceived neutrality, can play a pivotal role in bringing together actors, from governmental departments to community organizations, to discuss problems, identify priorities and decide on joint actions.

18. Community involvement in decision-making and implementation at the local level normally has outcomes that exert an immediate and visible effect on people's lives. Such inclusive strategies also increase the likelihood of compliance with agreed upon action, particularly if they have financial implications. In other words, people are more likely to pay for new and improved services, for cleaner water, for cleaner air and for better transport, if they have been part of the decision-making process leading up to these outcomes.

19. Looking ahead, it seems obvious that the rate of success of plans of action and national policies will depend on the extent to which they are anchored in civil society and can generate local commitments, whether from the business community or the people. The times are over when policy and programme development, planning, financing and execution were primarily a matter for government agencies and development institutions.

20. The above observations are validated by the unprecedented call and experience of the Habitat II process. In most countries, this process resulted in broad-based dialogues between government and civil society. These dialogues identified priority issues of common concern as well as ways and means to address them. Similarly, the active participation of local authorities and their associations in the Habitat II preparatory process has not only strengthened the global network of local authorities but also led to their call

for a new partnership with the United Nations, a partnership that these associations specifically requested at Istanbul. The establishment of such partnerships between the United Nations and major groups has been, all along, one of the principal goals of Agenda 21, and the significant progress achieved therein must be seen as a major accomplishment of Habitat II. In fact, it has become evident that the implementation and follow-up process of Habitat II and its plan of action is being driven by the expectations of these groups of partners as well as by member States, and this has implications also for the implementation of Agenda 21 in the years ahead, and not just in the area of human settlements.

C. Increased cooperation and networking

21. As a direct consequence of recommendations of the Commission on Sustainable Development and the Inter-Agency Committee on Sustainable Development (IACSD) in 1994, more than a dozen multilateral and bilateral assistance agencies began discussions leading to the formation of the "Urban Forum", to serve as a vehicle for information exchange, and joint programming in the field of sustainable human settlements development. The success of "A Day of Local Authorities" at the third session of the Commission on Sustainable Development in 1995 and the joint publication by local authorities and their organizations (ICLEI, the United Towns Development Agency (UTDA) and the Group of 4 Plus (G4+)) and the United Nations Centre for Human Settlements (Habitat) and UNEP, of the book Making Cities Work: The Role of Local Authorities in the Urban Environment[4] have also served to focus attention on the critical role of local authorities as custodians of the urban environment. Such initiatives point the way towards more cost-effective pooling of resources in the accomplishment of shared goals.

22. A key to future progress lies in networking among all the partners and groups of partners. Considerable recent progress has been made here. The creation of the Huairou Commission as a high-level advisory board to the United Nations Centre for Human Settlements (Habitat) and other United Nations bodies, composed of women at the grass-roots level, women from non-governmental organizations, women politicians, activists and researchers, and women of the United Nations, has been instrumental in terms of ensuring that women's issues remain priority ones in the Habitat Agenda. Major progress has also been achieved by local authorities and their associations in establishing city networks to exchange information and experience, and to promote city-to-city cooperation on specific issues. Further efforts are being made in this regard to consolidate a global network linking United Nations-sponsored networks with those of international associations of cities and those established, for example, by ICLEI in the course of its work in promoting local Agenda 21 initiatives.

23. Given the positive response to the idea of exchanging best practices in human settlements development and management, which was established during the Habitat II preparatory process and endorsed by the General Assembly at its fiftieth session, efforts are now under way to establish a global network of capacity-building institutions actively engaged in the exchange of best practice knowledge, expertise and experience with support from the private sector and using the latest information technology to allow for easy local and global

access. In another promising step, parallel to this one, over 100 countries around the world have adopted urban and housing indicators as tools to inform policy-making in the human settlements sector. To consolidate the impact of these programmes, the Commission on Human Settlements, at its fifteenth session, requested the Executive Director of Habitat to establish a "global housing and urban observatory that would permit comparative international evaluation of progress in meeting the aims" of the Habitat Agenda, "and which would draw attention to and provide information on human settlements conditions worldwide".[5]

D. International commitments

24. At Habitat II, 171 countries committed themselves to sustainable human settlements development. The Habitat Agenda represents a reconfirmation of Agenda 21 in general and its human settlements-related programmes in particular. On another level, the Habitat Agenda also provides clear and detailed expression of the local environmental agenda and priorities of developing countries, which are focused on essential services, such as water supply, sanitation and waste management, among others, and are informed by the relationship between poverty and environmental decline, and thus by the need for sustainable economic growth to address both issues. Their cross-cutting nature also clearly links the discrete and sectoral chapters of Agenda 21 to sustainable human settlements development.

IV. UNFULFILLED EXPECTATIONS

25. It has become increasingly evident that land and land management policies should be dealt with not separately at the urban and rural levels, but rather in an integrated manner. The need for such a comprehensive approach is further called for given the environmental impact of city growth. The absence of a comprehensive national land policy is one of the principal constraints in most countries to achieving sustainable human settlement development and sustainable use of land and water resources, both for agriculture and for settlement needs. Up to now, however, only limited progress has been made to establish comprehensive national policies and appropriate institutional arrangements. The agencies of the United Nations system active in the area of social and economic development have also not been able, as of yet, to effectively cooperate in the critical area of land management although efforts to remedy this have begun.

26. Given the rates of urbanization in developing countries and subsequent new needs for services and infrastructure in human settlements, it is somewhat alarming to note that not much progress has been made on developing new mechanisms for sustained financing, on the scale required for the building, operating and maintaining of basic services and infrastructure (see table).

Government expenditures per person on water supply, sanitation, drainage, garbage collection, roads and electricity

Income grouping: cities in	US$ per person	Regional grouping: cities in	US$ per person
Low-income countries	15.0	Sub-Saharan Africa	16.6
Low-mid-income countries	31.4	South Asia	15.0
Middle-income countries	40.1	East Asia	72.5
Mid-high-income countries	304.6	Latin America and the Caribbean	48.4
High-income countries	813.5	Eastern Europe, Greece, North Africa and the Middle East	86.2
		Western Europe, North America, Australia	656.0

Source: The Housing Indicators Programme, vol. III, Preliminary Findings, A Joint Programme of the United Nations Centre for Human Settlements (Habitat) and the World Bank, Washington, D.C., April 1993.

27. Related to the above is the fact that, as cities grow, their transport problems get worse because the number of motorized vehicles and their level of use grow even faster than income, population, and investment in infrastructure and transport facilities, prompting further congestion and environmental decay. It is also particularly disheartening to note that the pace of motorization has led to policy paralysis in many countries and cities, despite recognition that something has to be done.

28. Improvements in housing, infrastructure and services must go hand in hand with economic and social development policies that produce sustained and significant growth and employment. From all indications, countries that do not have sufficient levels of urban infrastructure and services, as well as good urban management, are being sidelined by the economic changes and globalization processes under way. When cities do not work, investment does not take place, either from national sources or from foreign ones; and when cities fail, economies of countries generally tend to fail. Likewise, social exclusion and discriminatory policies and practices must be replaced by the promotion of social cohesion and human solidarity.

V. EMERGING PRIORITIES

A. Responding to local and national priorities

29. In preparation for Habitat II, over 130 countries formulated first-step, five-year National Plans of Action for Sustainable Human Settlements Development. The implementation of these Plans provides the operational and programmatic framework for international assistance and further provides the focus for assistance on substantive priority areas that have been identified at the national and local levels.

B. Linking the normative and analytical processes

30. The monitoring of progress in implementing the human settlements components of Agenda 21 and in implementing the Habitat Agenda provides an opportunity for linking policy development with the analysis of the information generated by national and local plans of action. Lessons learned from best practices in improving the living environment and the development of normative benchmarks based on urban and shelter indicators should help ensure that the implementation of plans of action will be translated into new policy reforms and strategies. These in turn should elicit both local and international support, investment and financing. This will be a major area of concentration of the United Nations Centre for Human Settlements (Habitat) in the implementation of the Habitat Agenda.

C. Forging new partnerships and dialogue between major groups

31. The broad-based participatory processes engaged in by the vast majority of countries in preparation for Habitat II provide a solid foundation for the development of strategic partnerships among major groups, notably, Governments at all levels, non-governmental organizations and community-based organizations, and the private sector. Continued international support in strengthening and nurturing civic engagement, popular participation and partnership should provide added impetus to ongoing efforts in urban management and governance. Emphasis should be placed on networking, both among these groups, and between them and the United Nations system. The multiple benefits of the participation of major groups at this international conference will have a major impact on the implementation of the global plan of action adopted at the Conference. These are also reflected in current efforts to involve representatives of local authorities, non-governmental organizations and the private sector in the work of the Commission on Human Settlements as is called for in the Habitat Agenda. Notable among these partnerships is the work of the women within the Huairou Commission regarding the continuous monitoring of the Habitat Agenda from a gender perspective.

D. Integrated approaches to addressing sectoral priorities

32. The Habitat Agenda provides a useful organizing framework for integrated and holistic approaches for the implementation of relevant goals of many of the sectoral chapters of Agenda 21. Implementation will require, however, that the United Nations system become more systematic in promoting participatory processes. By using the framework provided by the Habitat Agenda and the National Plans of Action, implementation support will be based increasingly on cross-sectoral and cross-institutional linkages and should provide through the use, inter alia, of indicators and best practices, the means by which to assess the local impacts of the social, economic and environmental dimensions of Agenda 21.

E. New paradigms for capacity-building

33. A key emerging priority will be capacity-building, particularly at the local level, to implement:

(a) National shelter strategies in order to achieve adequate shelter for all;

(b) Land management and policy reforms to achieve well-functioning land markets and security of tenure;

(c) Application of economic instruments to urban development and mobilization of domestic and international financial resources;

(d) Legal and policy frameworks in support of public-private partnerships;

(e) Policies, strategies and technologies for solid waste management, recycling and reuse;

(f) Policies for water demand management and the reduction of water wastage;

(g) Guiding principles of local self-government;

(h) Enhancing the role of women in settlements management and policy decision-making;

(i) Training and management development-systems;

(j) Institutionalizing of participatory and consultative processes and mobilizing of civic engagement;

(k) Fostering of social integration and human solidarity;

(l) Policies and systems for disaster preparedness and mitigation.

These priorities for capacity-building which are compatible with the priorities contained in national reports for Habitat II should help build up the

institutional and human capital needed for the implementation of the National Plans of Action and of local Agendas 21.

F. Creating an information and communication system for the exchange of knowledge, expertise and experience

34. A major contribution of the Habitat Agenda to implementing Agenda 21 lies in the initial development of effective information and communication systems using new information technologies wherever possible to facilitate the sharing and exchange of knowledge, expertise and experience gained at the national and local levels. Networking, information exchange and communication, using modern methods, should greatly facilitate the sharing and exchange of, inter alia, best practice expertise and experience, the use of shelter and urban indicators, and the transfer of technology in development.

Notes

[1] Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] Report of the United Nations Conference on Human Settlements (Habitat II), Istanbul, 3-14 June 1996 (A/CONF.165/14), chap. I, resolution 1, annex II.

[3] Official Records of the General Assembly, Forty-third Session, Supplement No. 8, addendum (A/43/8/Add.1).

[4] London, Earthscan Publications, 1996. Authored by Don Stevenson and others.

[5] See Official Records of the General Assembly, Fiftieth Session, Supplement No. 8 (A/50/8 and Corr.1 and 2), annex I, sect. A, resolution 15/6, para. 6.

UNITED NATIONS **E**

Economic and Social Council

Distr.
GENERAL

E/CN.17/1997/2/Add.7
21 January 1997

ORIGINAL: ENGLISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fifth session
7-25 April 1997

Overall progress achieved since the United Nations Conference on Environment and Development

Report of the Secretary-General

Addendum

Integrating environment and development in decision-making*

(Chapter 8 of Agenda 21)

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* The present report was prepared by the Department for Policy Coordination and Sustainable Development (DPCSD) as task management chapter 8 of Agenda 21, in accordance with arrangements agreed to by the Inter-Agency Committee on Sustainable Development (IACSD). It is the result of consultation and information exchange between United Nations agencies, international and national organizations, interested government agencies and a range of other institutions, individuals, and major group representatives.

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INTRODUCTION

1. The present report reviews progress made in the implementation of the objectives set out in chapter 8 of Agenda 21 (Integrating environment and development in decision-making),[1] taking into account the decisions taken by the Commission on Sustainable Development on this subject in 1995 and 1996 at its third and fourth sessions.

I. SELECTING KEY OBJECTIVES

2. The overall goal of chapter 8 of Agenda 21 is to integrate socio-economic and environmental concerns in the decision-making process with a broad range of public participation. The present analysis addresses three of the four key objectives of that chapter. The other, relating to economic instruments, is dealt with in chapters 4 and 33. The first objective is development of integrated and participatory strategies for sustainable development at the national level. In this area, progress has been mixed since the Rio Conference with further steps needed to realize their full potential. The second is development and use of specific policy-making tools and instruments that help to integrate environment and development in decision-making, including environmental impact assessment and indicators. The third is development and application of integrated environmental and economic accounting, where some progress has been made at the international level but much work remains at the national level.

II. REPORTING AND ANALYSING SUCCESS

3. Countries ranging from China and Swaziland to Canada have produced national sustainable development strategies (NSDSs), national conservation strategies or environmental action plans. In some countries, this has been done with the assistance of the World Bank, the United Nations Development Programme (UNDP), the World Conservation Union (IUCN) and some bilateral donors. Over 40 African countries have some sort of coordinating mechanism to produce such plans. Environmental factors have also been incorporated into macroeconomic strategies. Costa Rica and the Gambia have brought "green accounting" methods into their policy-making processes while China, Malawi and the United Republic of Tanzania have supported the efforts of their planning bodies to incorporate sustainable development principles into their overall planning efforts, including the production of national Agenda 21s.

A. National strategies

4. Various planning and policy-making models were already in place at the close of the United Nations Conference on Environment and Development in 1992. These included conventional national development plans, national conservation strategies (NCSs) national environmental action plans (NEAPs) (see box 1), national environmental management plans, green plans and provincial and state conservation strategies. Agenda 21 introduced (para. 8.7) the concept of the

Box 1. Hungary

In Hungary, the first draft of the National Environmental Action Programme (NEAP) was prepared in February 1996, followed by a wide debate by non-governmental organizations. The final draft was submitted to and approved by Parliament in September 1996. The Programme reflected all the basic recommendations of Agenda 21. Emphasis was given to sustainable development, policy reforms, capacity-building, environmental investments in priority areas and public participation. Also in 1996, a National Environmental Health Action Plan was established as a complement to the NEAP.

national sustainable development strategy (NSDS) whose aim is to "build upon and harmonize the various sectoral economic, social and environmental policies and plans that are operating in the country". The idea is to unify and integrate economic, social and environmental issues in decision-making by bringing together in the strategy process governmental ministries and decision makers representing finance, planning, environment, health and other key ministries as well as sectors of civil society (major group representatives) who have a stake in policy outcomes.

5. Agenda 21 establishes no set structure for NSDSs and so many of the existing planning and policy-making processes for environment and development have been subsumed under this rubric, with environmental factors in particular being taken up under existing development plans or existing environment plans (in some cases, expanded to include broader considerations of economic and social development). While there is no single model for national strategies and plans, they do have some common features such as identifying priority environment and development problems, defining priority actions and following up to ensure effective implementation.

6. Some countries have developed sectoral or thematic policies that reflect broader sustainable development concerns. Some have been in the form of conventional sectoral master plans, which were often prepared as parts of five-year development plans to coordinate donor involvement in a particular sector. Other examples of sectoral/thematic strategies include national plans of action to combat desertification, national tropical forestry action plans and coastal zone management policies. In many of these cases, the sectoral policy is a tool for complying with the requirements of international commitments.

7. National strategies for sustainable development have been most successful when going beyond merely consulting a small and selected group of officials they ensure non-governmental and public participation in the formulation and implementation process. Public participation is often secured by involving various major groups in the decision-making process, especially in national councils for sustainable development or their equivalents. Public awareness-raising is important, and non-governmental organizations can play a key role in this regard.

B. Local Agenda 21s

8. The most significant area of success with strategies and plans is at the level of cities and municipalities, where local Agenda 21 initiatives have flourished (see box 2). These have been grass-roots expressions of public concern and involvement rather than top-down planning exercises. In some cases, local authorities were reluctant to link their efforts to national action plans for fear that the agenda would then be imposed upon them from above rather than flow from local needs. A wide variety of successful cases have been reported in the last four years on these initiatives. At the third session of the Commission on Sustainable Development local authorities presented 14 case studies of local Agenda 21 initiatives from around the world. Also, an extensive survey of local Agenda 21 initiatives conducted by the International Council for Local Environmental Initiatives (ICLEI), in cooperation with the Department for Policy Coordination on Sustainable Development of the United Nations Secretariat indicates that more than 1,500 local Governments from 49 countries are pursuing local Agenda 21 action plans through official planning processes in partnership with the voluntary and private sectors in their communities. Local Agenda 21 initiatives have encompassed community-wide consultation processes, formulation and implementation of local strategies, developing of local sustainability indicators, new local environmental management systems, concrete projects with public participation, and so on. In 1996, ICLEI, the International Development Research Centre (IDRC) and the United Nations Environment Programme (UNEP) prepared and launched the "Local Agenda 21 Planning Guide", which is already being used by a number of municipalities for local-level planning.

Box 2. Local Agenda 21 initiatives

In Peru, Cajamarca is one of two cities that have developed local versions of Agenda 21 through the Inter-Institutional Consensus Building Committee.

Nongkai, Thailand, is one of seven municipalities that participate in the Urban Environmental Management Guidelines Project. In 1994, it launched the Local Partnership for Community Land-use Planning which includes initiation of the process of producing local land-use plans.

9. In addition, the United Nations Centre for Human Settlements (Habitat) as part of its preparations for the United Nations Conference on Human Settlements (Habitat II) developed, in cooperation with other partners, an extensive database of "best practices" related to sustainable development at the local level which is now available on the Internet. Local-level strategies and plans have proved more successful than many of those at the national level in terms of making a direct impact.

C. National councils

10. A substantial number of countries (150) have established national-level commissions or coordinating mechanisms designed to develop an integrated approach to sustainable development and to include a wide range of civil society sectors in the process of agenda-setting and strategy-building. This has been especially true of developing countries and countries with economies in transition that have traditions of national planning. While some of these institutions existed prior to 1992, more than 90 per cent have been established in response to the Rio Conference. In other cases, longer-standing bodies, including the traditional type of environmental ministry, have been restructured in a manner consistent with Agenda 21.

11. Many of the councils are governmental bodies or bodies closely linked to the Governments (see box 3). The essential task of almost all of these bodies is coordination of actions related to environment and development, in most cases at different levels (national, local). Approximately half of the councils are in charge of formulation of a policy or national strategy for sustainable development; part of them are explicitly in charge of implementation and enforcement of national strategies for sustainable development.

Box 3. National councils for sustainable development

Typical composition

(a) Governmental ministries and agencies only (multisectoral, sectoral)
(b) Parastatal/multi-stakeholders
(c) Major groups, particularly non-governmental organizations

Typical functions

(a) Decision-making
(b) Policy formulation
(c) Policy implementation and enforcement
(d) Policy analysis and evaluation
(e) Focal point for coordination at different levels
(f) Advisory
(g) Collection of information and data, dissemination
(h) Reporting to the Commission on Sustainable Development and/or government
(i) Mobilization of resources and funds
(j) Discussion and consultation forum

12. In almost all countries, at least one ministry is participating in a council for sustainable development or has a department in charge of coordination of sustainable development at the governmental level (see box 4). Nearly all of the newly installed councils include the participation of the public, academics, or private sector or other non-governmental institutions.

Box 4. Cameroon

After the United Nations Conference on Environment and Development, the Ministry of Environment and Forests (MINEF) was created with the primary task of formulating appropriate environment policy and strategies. At the level of the Prime Minister's Office, a National Commission on Sustainable Development has been established to bring together representatives from ministries, non-governmental organizations and the business community. A coordination unit (CU) within MINEF is responsible for the coordination of the implementation of the National Environmental Management Plan. At the local level, one Technical Regional Committee (TRC) in each province, in cooperation with CU, is charged with the overall coordination of sectoral activities. TRCs act on a highly participatory level, involving representatives of various ministries, non-governmental organizations and grass-roots organizations.

13. Various international organizations, for example, UNEP, the World Bank, UNDP, the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organization of American States (OAS), various development banks, and non-governmental organizations, assist countries in assessing the status of the environment, in building capacities within the countries to create national sustainable development strategies, and in promoting networking among countries in the same region. The agents for these support activities include national councils and the sustainable development advisers currently designated by UNDP in more than 40 countries around the world.

III. PROMISING CHANGES

A. Regional Agenda 21 initiatives

14. In the last two years, there has been an increase in the number of regional initiatives undertaken to formulate regional strategies of sustainable development, and action plans and to establish mechanisms for regional cooperation in implementing such initiatives (see box 5). These initiatives have often been launched as the result of summit or ministerial meetings. These initiatives are intended to translate global issues into regional ones, to provide a forum for regional cooperation and to promote networking among various national and local constituencies. Another feature is the involvement of non-State actors like local authorities and non-governmental organizations.

Box 5. Baltic Sea and Mediterranean regions

Agenda 21 for the Baltic Sea region

A regional Agenda 21 for the Baltic Sea region is being developed, to be completed by spring 1998. It is to be built on the earlier Environmental Action Programme coordinated by the Helsinki Commission. The Plan will be implemented by different sectors of the member countries on the basis of an agreed division of labour.

Mediterranean Commission on Sustainable Development

The Commission was established in 1996 to (a) identify, evaluate and assess major economic, ecological and social problems set out in Agenda 21 for the region and to make proposals to the contracting parties and (b) to enhance regional cooperation and rationalize the intergovernmental decision-making capacity in the Mediterranean basin for the integration of environment and development issues.

B. Use of decision-making and policy tools for sustainable development

15. One area of promising change relates to the increasing use by Governments, the private sector and other major groups of integrative decision-making tools. These are economic and policy instruments that aid the process of integrating environment and development in decision-making. While they do not by themselves constitute a strategy, they do help decision makers achieve and measure progress towards sustainable development goals and targets. Among the decision-making tools that have been particularly widely developed and used are the following.

1. Environmental impact assessment

16. Environmental impact assessment (EIA) started as a means to ensure that the environmental impact of projects and programmes was properly assessed during project planning and implementation. It is increasingly being seen and used as a continuous decision-making tool for integrating the biophysical and socio-economic aspects into development plans and policies. It is used by a wide variety of international organizations, financial institutions, government offices and non-governmental organizations. It is now no doubt one of the most widely used tools for sustainable development decision-making.

17. Since EIA was introduced at the national level for the first time more than 25 years ago, more than 70 per cent of countries have adopted laws and regulations requiring EIAs. In addition, mandatory or informal procedures of impact assessment for governmental activities have been developed in many countries. As reported in chapter 6 of Agenda 21, however, more needs to be done to incorporate health aspects into overall environmental impact assessment.

18. Strategic environmental assessment (SEA), a new technique of impact assessment, has gained attention in some developed countries in the last five years. Compared with EIA whose focus has mainly been on projects, SEA aims at the identification of the cumulative consequences of policies, governmental programmes and plans with impact on the environment, the economy and social development.[2]

2. Indicators of sustainable development

19. The growing use of indicators reflects the recognition that indicators are an essential tool for decision-making, for understanding and monitoring trends and for judging the effectiveness of policies and actions. Many Governments, non-governmental organizations and international organizations have contributed substantially to the development of indicators of sustainable development. The Commission on Sustainable Development for its part launched a global process to draw upon these initiatives and make use of their collective expertise and knowledge to arrive at consensus with regard to technical validity, comparability and political acceptability of indicators.

20. The Commission on Sustainable Development approved a programme of work and called upon the organizations of the United Nations system, with the support of other intergovernmental and non-governmental organizations, and through the coordination of the Department for Policy Coordination on Sustainable Development of the United Nations Secretariat, to implement the programme of work. As a result of the programme and wide cooperation within and outside the United Nations system, a core set of indicators were identified followed by preparation of methodology sheets for each of the indicators. The book Indicators of Sustainable Development: Framework and Methodologies,[3] was published in October 1996 as a significant milestone leading to the establishment of national indicator programmes.

3. Environmental management systems

21. The International Organization for Standardization (ISO) 14000 series reported in detail under chapter 34, the European Union's Environment Management and Audit Scheme (EMAS) and a number of national environmental management system (EMS) standards have contributed to increasing the adoption of environmental management systems by the business sector in developed and developing countries. Additionally, many Governments are working towards developing legislation or national EMSs that closely mirror the ISO 14000 and EMAS standards in order to facilitate compliance with regulations as well as international standard certification requirements.

4. Integrated pollution prevention and control

22. Integrated pollution prevention and control (IPPC) provides for integrated environmental management in all environmental media simultaneously. By evaluating the total emissions from a facility, the transfer of pollution from one (strictly controlled) medium to another (non-controlled or less-controlled)

medium is avoided. The use of IPPC is accomplished, inter alia, with integrated permits and the observation of the entire life cycle of products.

23. While few countries have fully introduced IPPC, most Organisation for Economic Cooperation and Development (OECD) countries have implemented elements of an integrated pollution prevention system in their national policies and legislation. Successful introduction of IPPC methods at the national level can be achieved with regulations and institutional changes that abandon the media-specific approach.

5. Pollutant release and transfer registers

24. Pollutant release and transfer registers (PRTRs) are being designed or are already in use in most OECD countries, as well as in some non-OECD countries, for example South Africa and Egypt. PRTR is a catalogue or register of potentially harmful pollutant releases or transfers to the environment from a variety of sources, including information about wastes transported to treatment and disposal sites. The PRTR can be an important tool in the total environment policy of a Government, providing information otherwise difficult to obtain, encouraging business to reduce pollution levels and engendering broad public support for government environmental policies.

6. Other policy instruments

25. Economic instruments that are reported under chapters 4 and 33 are also being increasingly applied as integrative policy tools by national decision makers in different countries. Efforts to create the proper conditions to enable business and individuals to integrate environment into their decision-making processes have started to move Governments away from the traditional command-and-control approaches towards the adoption of economic instruments and other strategies that combine market-based instruments and direct regulation in 'partnerships' with the private sector.

26. These instruments include environmental taxes and charges (as adopted within many OECD countries), environmental subsidies and green funds. There is increased understanding of the usefulness of tradable permits applied, for instance, in water resource management in Chile and in air emission control in the United States of America. Environmental performance bonds are also gaining attention in all regions by both industrialized and developing countries.

27. Voluntary agreements, reported under chapter 4, have been negotiated between industry and Government in several developed countries to complement, but not replace, environmental regulations. These agreements involve performance and timetable commitments by industry to achieve environmental protection and pollution prevention goals.

28. Joint implementation has the potential to enhance the cost-effectiveness of measures taken to combat transboundary pollution. Without distracting from the obligation to comply with the standards in the 'donor' country, they provide the recipient country with much needed environmentally sound investments in

infrastructure and transfer of environmentally sound technology (see report of the Secretary-General on chapter 34 of Agenda 21 (E/CN.17/1997/2/Add.24)). Under the auspices of the United Nations Framework Convention on Climate Change,[4] a pilot project is being carried out on activities implemented jointly (see report of the Secretary-General on chapter 9 of Agenda 21 (E/CN.17/1997/2/Add.8)).

C. Integrated environmental and economic accounting

29. In the absence of an international consensus on how to incorporate environmental assets and the cost and benefits of their use into the internationally adopted System of National Accounts (SNA), the United Nations Statistics Division (UNSD) developed a System for Integrated Environmental and Economic Accounting (SEEA) as a satellite system of the 1993 SNA.[5]

30. Considerable efforts have been made at the international level in furthering the integration of economic and environmental accounting and in developing methodologies in this area. The current work is concentrated in three main areas: (a) creation of satellite accounts of the system of national accounts (SNA); (b) creation of specific national resource or environmental accounts; and (c) creation of environmental accounts at the microlevel.

31. Discussion at the macroeconomic level has focused on how the SNA can be adjusted to account for environmental values. This includes the calculation of a "green gross domestic product (GDP)". The adoption of an international consensus for a framework and reference for the compiling of "green national accounts" is an overall emerging priority, with the purpose of facilitating the implementation of the concept in practical terms and initiating regular publication. Only a few countries have attempted such an exercise, and the experiences of these countries are varied indeed, reflecting different objectives as well as different methodological approaches.

32. The United Nations Statistics Division has been very active in the development of satellite accounts, and proposed a system for integrated environment and economic accounting (SEEA), which was published in 1993.[6] Several industrialized and developing countries are presently experimenting with the implementation of satellite accounts through the general application of the SEEA framework to a specific national context (see box 6). However, the United Nations Statistics Division handbook has not yet been fully tested. Other initiatives include a manual to be prepared by the Statistical Office of the European Communities (Eurostat) at the request of policy makers in Europe, and preliminary drafts are under preparation by the Economic and Social Commission for Asia and the Pacific (ESCAP).

33. Taking into account the level of methodologies and their complex nature, the formulation of a clear, practical set of guidelines or manual for the application of the SEEA is considered essential and is being called for by a growing number of countries. An operational manual is being prepared and its publication by the United Nations Statistics Division in cooperation with the Nairobi Group is anticipated for 1997. (The Nairobi Group includes UNEP, the World Bank, Eurostat, the United Nations Centre for Human Settlements (Habitat),

Box 6. Colombia and the Philippines

Colombia: In 1992, the Inter-institutional Committee for Environmental Accounts (CICA) was established with the responsibility of defining and validating the methodology and integrating it in the national accounting system. With the assistance of the United Nations Statistics Division, the pilot project of an Integrated Economic and Environmental Accounting System for Colombia (COLSCEA) was initiated, and the system of national accounts has been executed since 1995 by the National Administrative Department of Statistics (DANE), as part of its consolidation strategy.

The Philippines: In 1994, the National Statistical Coordination Board (NSCB), the agency mandated to compile the national accounts, started a pilot project on the United Nations SEEA. So far, only the compilation of the asset account for three resources (fisheries, forest and minerals) has been carried out, but preliminary conclusions suggest that considerable processed and unprocessed administrative data can be transformed into useful data for environmental accounting.

the New Economics Foundation, the World Wildlife Foundation and individual experts.) In furtherance of this, considerable efforts are still needed to assist countries in developing environmental accounts with linkages to national accounting systems.

34. As environmental data related to individual economic sectors can yield valuable insights for resource managers in the concerned sectors, interest in the development and use of national resource accounts as a policy tool is growing in strength. It is building on sections of the satellite accounts and the underlying objective is to integrate parameters that reflect the depletion of natural capital into economic decisions.

35. At the microeconomic level, international as well as national accounting standard-setting bodies are making progress in looking at contingent liability and disclosure requirements for environmental impacts in annual business reports. A growing number of firms now refer to environmental practices in their annual financial statements and implement initiatives that may move business closer to cleaner production and eco-efficiency goals.

IV. UNFULFILLED EXPECTATIONS

A. Sustainable development strategies

36. Agenda 21 recommends (para. 8.7) that national sustainable development strategies should "build upon and harmonize the various sectoral ... plans that are operating in the country", and that the experience gained through existing planning exercises, national conservation strategies and environmental action plans should be, "fully used and incorporated into a country-driven sustainable development strategy", based on the "widest possible participation". While

integration, participation and unification of existing plans are key themes for sustainable development strategies, it has been difficult to realize this approach in practice. Frequently, governmental ministries and decision makers have continued to operate in separate and distinct spheres with conventional lines of reporting and modes of consultation without public participation. Other obstacles to the fuller use of sustainable development strategies, include the following states of affairs:

(a) Governments, particularly those of developing countries, are overloaded with requests for various types of strategies, plans and schemes to satisfy the requirements of international banks, lending agencies and international organizations, and do not have sufficient resources to cope with all these requests. International organizations and the banks have not always been clear about which plans and strategies should have priority and there is no consensus on priority's being given to sustainable development strategies;

(b) Not all agencies, even within the United Nations system, have the same understanding of or commitment to the idea of sustainable development. Some have adopted programmes of environmentally sustainable development, and others have called for sustainable human development while still others have talked of conservation or other types of environmental plans. These are all affirmed as being equivalent, but lead to confusion regarding what is actually meant by "sustainable development", in the final analysis;

(c) Conflicting claims regarding priorities have emerged from different international conferences, so countries are not always clear about which issues should be given precedence in national programmes and action plans;

(d) International agreements are often being reached faster than countries can effectively respond to the requirements agreed to;

(e) Governments, particularly those of developing countries, often lack the financial and staff resources to implement the different international conferences, conventions, agreements and plans that they have endorsed or signed.

37. A top-down approach resulting from external requirements or the need to achieve loan replenishment conditions has generally resulted in impressive environmental action plans, but often at the expense of public participation and national ownership. It is only through the commitment and participation of non-governmental organizations, major groups, the public and ministry officials that implementation and follow-up can be assured. Non-governmental organizations, in particular, raise public awareness of issues and help to mobilize public support to keep governmental action on course. National sustainable development strategies are more useful for the process they involve than for the outputs they seek to produce.

B. Integrated environmental and economic accounting at the national level

38. There has been relatively slow progress in developing a system for environmental and economic accounting (SEEA) at the national level, although current efforts in a number of countries indicate that the SEEA may gain increasing attention in the near future. The SEEA seeks to integrate environmental issues into conventional national accounts. Conventional national accounts have provided indicators for assessment of economic performance and trends for many years, but the emphasis on integrating environmental information into this process is relatively new, and remains somewhat controversial. Among other issues, disagreement centres around which is preferable, monetary economic accounting through economic valuation of environmental cost or benefits, or physical environmental accounting.

39. Progress has been made in the implementation of national resource accounts within OECD countries, including water accounts in Spain, which combine information on water quality and quantity with information about expenditures on water pollution abatement and mobilization of resources. Water accounts in France, forest accounts in Japan, energy accounts in Norway, and crude oil and natural resource accounts in Canada, Indonesia and China are all being kept. Although work is under way in this area, progress remains limited, owing to countries' lack of knowledge of their potential resources or vulnerability and the problems connected with identifying the direct links between specific economic activities and particular environmental resources.

V. EMERGING PRIORITIES

A. National strategies

40. There is a need to further clarify the definition, purposes and modalities for national sustainable development strategies and to bring some consistency of practice to the different requirements that countries are to satisfy with respect to environmental action plans, national development plans and country strategy papers. There is also a need to clarify how the outcomes of different international conferences and their resulting calls for action can be integrated into national planning and overall action for sustainable development. Strategies, and especially sustainable development strategies, have to be seen as ongoing cyclic processes of action and learning from experience through a participatory approach, feeding into improved policies and programmes. The emphasis needs to be put on the participatory and learning aspects of the process more than on the document that is the product of the process.

41. There are donor-funded efforts in capacity-building to support the preparation of sustainable development strategies, such as UNDP's Capacity 21 programme and others supported by the International Monetary Fund (IMF) and OECD, among others. Many developing countries need continued capacity-building support to meet the requirements for the many types of plans and strategies called for, including those related to various international conventions and agreements.

B. Strategic environmental assessment

42. The limited practical experience with strategic environmental assessment (SEA) should be further expanded and applied since SEA could serve as a useful policy tool for many countries. SEA, in particular, helps to introduce sustainability principles and responsibilities into economic decision-making by drawing attention to existing environmental benefits and costs. It also provides a mechanism for public participation in discussions relevant to sustainability at a strategic level.

Notes

[1] Report of the United Nations Conference on Environment and Development, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] Environmental Planning Group/International Institute for Environment and Development (IIED), A Directory of Impact Assessment Guidelines (London, June 1995).

[3] United Nations publication, Sales No. E.96.II.A.16.

[4] A/AC.237/18 (Part II)/Add.1 and Corr.1, annex I.

[5] United Nations publication, Sales No. E.94.XVII.4.

[6] See Integrated Environmental and Economic Accounting: Handbook of National Accounting, Studies in Methods, No. 61 (United Nations publication, Sales No. E.93.XVII.12).